

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WMI-04-0008 **USGS Hydrologic Unit:** 051201030401
Stream Name: Tributary of Campbell Creek **County:** Delaware
Description: CR 200 N **Latitude:** 40 13 12.65496 **Longitude:** -85 14 5.27081
Drainage: 3.524 **Site Number:** 14T-101

SiteID: WMI-04-0008 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16167
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	85.4 %		ASTM D888-09(C)
DO	9.05 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	628 umho/cm		SM2510B
Temperature	12.73 °C		SM2550B(2)
Turbidity (Hach)	31.3 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	5 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010697	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	29 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	28 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	40 mg/L	15	EPA 300.0

Lab ID # 3010698	Result	Reporting Limit	Method
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	75 mg/L	0.1	EPA 200.7
Magnesium (Total)	31 mg/L	0.1	EPA 200.7

Lab ID # 3010699	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010700	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1	EPA 353.2

Lab ID # 3010701	Result	Reporting Limit	Method
Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010702	TOC	3.4 mg/L	0.5	SM5310C
AA14495	COD	8.3 mg/L	10	EPA 410.4
	TKN	0.38 mg/L	0.3	SM4500N(Org)-B
AB16167	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	1413.6 MPN/100mL	1	SM9223B

SiteID: WMI-04-0008 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16411
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Dead lamb directly upstream of sampling location

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	115.8 %		ASTM D888-09(C)
	DO	12.22 mg/L		ASTM D888-09(C)
	pH (Field)	7.98 SU		EPA 150.2
	Specific Conductance (Field)	686 umho/cm		SM2510B
	Temperature	12.83 °C		SM2550B(2)
	Turbidity (Hach)	13.6 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16411	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	261.3 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0008 Sample Date: 04/28/2014 IDEM Sample #: AB16483
 Water Flow Type Eddy Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	84.6 %		ASTM D888-09(C)
DO	9.3 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	648 umho/cm		SM2510B
Temperature	11.01 °C		SM2550B(2)
Turbidity (Hach)	37.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	980.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0008 Sample Date: 05/05/2014 IDEM Sample #: AB16802
 Water Flow Type Eddy Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Dead lamb still present. immediately upstream.

Lab ID #	Result	Reporting Limit	Method
% Sat	86.7 %		ASTM D888-09(C)
DO	9.57 mg/L		ASTM D888-09(C)
pH (Field)	7.56 SU		EPA 150.2
Specific Conductance (Field)	692 umho/cm		SM2510B
Temperature	10.84 °C		SM2550B(2)
Turbidity (Hach)	15.7 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1203.3 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0008 Sample Date: 05/12/2014 IDEM Sample #: AB16935
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	93.6 %		ASTM D888-09(C)
DO	8.71 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	623 umho/cm		SM2510B
Temperature	18.79 °C		SM2550B(2)
Turbidity (Hach)	110 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3026759	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	34 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	98 mg/L	10	SM2540D
Solids, Total (TS)	440 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	31 mg/L	25	EPA 300.0

Lab ID # 3026760	Result	Reporting Limit	Method
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	69 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3026761	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3026762	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.2

Lab ID # 3026763	Result	Reporting Limit	Method
Phosphorus, Total	0.29 mg/L	0.05	SM4500P-E

Lab ID # 3026764	Result	Reporting Limit	Method
TOC	4.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17802			
COD	< 10 mg/L	10	EPA 410.4
TKN	1.9 mg/L	0.3	SM4500N(Org)-B
AB16935a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	19863 MPN/100mL	10	SM9223B

SiteID: WMI-04-0008 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17368
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	82.9 %		ASTM D888-09(C)
DO	8.14 mg/L		ASTM D888-09(C)
pH (Field)	7.36 SU		EPA 150.2
Specific Conductance (Field)	519 umho/cm		SM2510B
Temperature	16.17 °C		SM2550B(2)
Turbidity (Hach)	81.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042350			
Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
Chloride	21 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	36 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042351			
Hardness (as CaCO3)	250 mg/L	0.66	SM2340B
Calcium (Total)	61 mg/L	0.1	EPA 200.7
Magnesium (Total)	23 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042352			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042353			
Nitrogen, Nitrate+Nitrite	8.7 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042354	Phosphorus, Total	0.27 mg/L	0.05	SM4500P-E
3042355	TOC	5.8 mg/L	0.5	SM5310C
AA20576	COD	17 mg/L	10	EPA 410.4
	TKN	0.86 mg/L	0.3	SM4500N(Org)-B
AB17368	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	920.8 MPN/100mL	1	SM9223B

SiteID: WMI-04-0008 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17542
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	69 %	ASTM D888-09(C)
	DO	6.56 mg/L	ASTM D888-09(C)
	pH (Field)	7.51 SU	EPA 150.2
	Specific Conductance (Field)	752 umho/cm	SM2510B
	Temperature	17.44 °C	SM2550B(2)
	Turbidity (Hach)	17 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Flow	53.4426 cf/sec	FM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060518	Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
	Chloride	31 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	460 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
	Sulfate	60 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060519	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	370 mg/L 86 mg/L 38 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060520	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060521	Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2
3060522	Phosphorus, Total	0.15 mg/L	0.05	SM4500P-E
3060523	TOC	2.6 mg/L	0.5	SM5310C
AA22920	COD TKN	< 10 mg/L 0.36 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17542	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 1732.9 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-04-0008 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18398
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q2 turb = 140; Diesel sheen and odor from sediments

Lab ID #	Result	Reporting Limit	Method
	% Sat	64.2 %	ASTM D888-09(C)
	DO	6.02 mg/L	ASTM D888-09(C)
	pH (Field)	7.51 SU	EPA 150.2
	Specific Conductance (Field)	776 umho/cm	SM2510B
	Temperature	17.07 °C	SM2550B(2)
	Turbidity (Hach)	22.9 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

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SiteID: WMI-04-0008 Sample Date: 08/18/2014 IDEM Sample #: AB18732
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	42.4 %		ASTM D888-09(C)
DO	4.23 mg/L		ASTM D888-09(C)
pH (Field)	7.12 SU		EPA 150.2
Specific Conductance (Field)	863 umho/cm		SM2510B
Temperature	14.18 °C		SM2550B(2)
Turbidity (Hach)	5.85 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3087338	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	330 mg/L	1	SM2320B
Chloride	23 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	540 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
Sulfate	81 mg/L	25	EPA 300.0

Lab ID # 3087339	Result	Reporting Limit	Method
Hardness (as CaCO3)	410 mg/L	0.66	SM2340B
Calcium (Total)	94 mg/L	0.1	EPA 200.7
Magnesium (Total)	41 mg/L	0.1	EPA 200.7

Lab ID # 3087340	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087341	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

Lab ID # 3087342	Result	Reporting Limit	Method
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E

Lab ID # 3087343	Result	Reporting Limit	Method
TOC	2.5 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25782			
COD	< 10 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB18732			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: WMI-04-0008 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19045
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	29.6 %		ASTM D888-09(C)
DO	3.08 mg/L		ASTM D888-09(C)
pH (Field)	7.21 SU		EPA 150.2
Specific Conductance (Field)	831 umho/cm		SM2510B
Temperature	12.48 °C		SM2550B(2)
Turbidity (Hach)	8.43 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105366			
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	28 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	64 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105367			
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	91 mg/L	0.1	EPA 200.7
Magnesium (Total)	38 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105368			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105369			
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105370	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3105371	TOC	3.1 mg/L	0.5	SM5310C
AA28029	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.35 mg/L	0.3	SM4500N(Org)-B
AB19045	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	517.2 MPN/100mL	1	SM9223B

SiteID: WMI-04-0008 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19228
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	67.2 %	ASTM D888-09(C)
	DO	7.23 mg/L	ASTM D888-09(C)
	pH (Field)	7.36 SU	EPA 150.2
	Specific Conductance (Field)	815 umho/cm	SM2510B
	Temperature	12.2 °C	SM2550B(2)
	Turbidity (Hach)	6.83 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130292	Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
	Chloride	34 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	480 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
	Sulfate	52 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130293	Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
	Calcium (Total)	90 mg/L	0.1	EPA 200.7
	Magnesium (Total)	38 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130294	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130295	Nitrogen, Nitrate+Nitrite < 0.1 mg/L	0.1	EPA 353.2
3130296	Phosphorus, Total 0.07 mg/L	0.05	SM4500P-E
3130297	TOC 2.9 mg/L	0.5	SM5310C
AA31604	COD < 10 mg/L	10	EPA 410.4
	TKN 0.5 mg/L	0.3	SM4500N(Org)-B
AB19228	Coliforms (Total) 1732.9 MPN/100mL	1	SM9223B
	E. coli 98.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0010 **USGS Hydrologic Unit:** 051201030204
Stream Name: Elkhorn Creek **County:** Randolph
Description: CR 500 N **Latitude:** 40 14 7.14176 **Longitude:** -85 9 35.64910
Drainage: 7.098 **Site Number:** 14T-102

SiteID: WMI-02-0010 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16178
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	85.6 %		ASTM D888-09(C)
DO	9.95 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	620 umho/cm		SM2510B
Temperature	13.32 °C		SM2550B(2)
Turbidity (Hach)	16.9 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	5 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010705	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	26 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	36 mg/L	15	EPA 300.0

Lab ID # 3010706	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	74 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3010707	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010708	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	EPA 353.2

Lab ID # 3010709	Result	Reporting Limit	Method
Phosphorus, Total	0.16 mg/L	0.05	SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3010710	TOC	4.5 mg/L	0.5	SM5310C
AA14496	COD	6.7 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB16178	Coliforms (Total)	920.8 MPN/100mL	1	SM9223B
	E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: WMI-02-0010 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16422
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	128.4 %		ASTM D888-09(C)
	DO	13.37 mg/L		ASTM D888-09(C)
	pH (Field)	7.95 SU		EPA 150.2
	Specific Conductance (Field)	691 umho/cm		SM2510B
	Temperature	13.47 °C		SM2550B(2)
	Turbidity (Hach)	6.69 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16422	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	201.4 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0010 Sample Date: 04/28/2014 IDEM Sample #: AB16494
 Water Flow Type: Glide Water Appearance: Brown Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	82 %		ASTM D888-09(C)
DO	8.95 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	612 umho/cm		SM2510B
Temperature	11.32 °C		SM2550B(2)
Turbidity (Hach)	102 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16494			
E. coli	1732.9 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16494a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0010 Sample Date: 05/05/2014 IDEM Sample #: AB16813
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	114.6 %		ASTM D888-09(C)
DO	12.46 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	695 umho/cm		SM2510B
Temperature	11.71 °C		SM2550B(2)
Turbidity (Hach)	6.48 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16813			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	178.5 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0010 **Sample Date:** 05/12/2014 **IDEM Sample #:** AB16946
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	102.8 %	ASTM D888-09(C)
	DO	9.41 mg/L	ASTM D888-09(C)
	pH (Field)	7.7 SU	EPA 150.2
	Specific Conductance (Field)	731 umho/cm	SM2510B
	Temperature	19.57 °C	SM2550B(2)
	Turbidity (Hach)	10.3 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation
Lab ID # 3026767	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	300 mg/L	1 SM2320B
	Chloride	33 mg/L	10 EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10 SM2540D
	Solids, Total (TS)	420 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	410 mg/L	10 SM2540C
	Sulfate	50 mg/L	25 EPA 300.0
Lab ID # 3026768	Result	Reporting Limit	Method
	Hardness (as CaCO3)	350 mg/L	0.66 SM2340B
	Calcium (Total)	79 mg/L	0.1 EPA 200.7
	Magnesium (Total)	37 mg/L	0.1 EPA 200.7
Lab ID # 3026769	Result	Reporting Limit	Method
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D
Lab ID # 3026770	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1 EPA 353.2
Lab ID # 3026771	Result	Reporting Limit	Method
	Phosphorus, Total	0.12 mg/L	0.05 SM4500P-E
Lab ID # 3026772	Result	Reporting Limit	Method
	TOC	4.1 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17803			
COD	11 mg/L	10	EPA 410.4
TKN	0.43 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16946			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1203.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0010 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17369
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	85.6 %		ASTM D888-09(C)
DO	8.33 mg/L		ASTM D888-09(C)
pH (Field)	7.45 SU		EPA 150.2
Specific Conductance (Field)	467 umho/cm		SM2510B
Temperature	16.6 °C		SM2550B(2)
Turbidity (Hach)	68.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042358			
Alkalinity (as CaCO3)	160 mg/L	1	SM2320B
Chloride	19 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	24 mg/L	10	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	23 mg/L	10	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042361			
Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
Calcium (Total)	56 mg/L	0.1	EPA 200.7
Magnesium (Total)	21 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042362			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042365			
Nitrogen, Nitrate+Nitrite	6.3 mg/L	1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042368	Phosphorus, Total	0.54 mg/L	0.1	SM4500P-E
3042371	TOC	8.4 mg/L	0.5	SM5310C
AA20577	COD	21 mg/L	10	EPA 410.4
	TKN	1.4 mg/L	0.3	SM4500N(Org)-B
AB17369	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	770.1 MPN/100mL	1	SM9223B

SiteID: WMI-02-0010 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17543
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method	
	% Sat	136 %	ASTM D888-09(C)	
	DO	12.3 mg/L	ASTM D888-09(C)	
	pH (Field)	8.11 SU	EPA 150.2	
	Specific Conductance (Field)	794 umho/cm	SM2510B	
	Temperature	20.06 °C	SM2550B(2)	
	Turbidity (Hach)	9.65 NTU	EPA 180.1	
	Air Temp	4 Lookup	Observation	
	Sky Conditions	4 Lookup	Observation	
	Wind Direction	27 Lookup	Observation	
	Wind Strength	2 Lookup	Observation	
3060534	Alkalinity (as CaCO3)	340 mg/L	1	SM2320B
	Chloride	27 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	480 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
	Sulfate	59 mg/L	5	EPA 300.0
3060535	Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
	Calcium (Total)	90 mg/L	0.1	EPA 200.7
	Magnesium (Total)	40 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3060536	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060537	Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.2
3060538	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
3060539	TOC	3 mg/L	0.5	SM5310C
AA22922	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.37 mg/L	0.3	SM4500N(Org)-B
AB17543	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	866.4 MPN/100mL	1	SM9223B

SiteID: WMI-02-0010 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18397
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q2 Turb = 18.5

Lab ID #		Result	Reporting Limit	Method
	% Sat	138.8 %		ASTM D888-09(C)
	DO	12.58 mg/L		ASTM D888-09(C)
	pH (Field)	8.08 SU		EPA 150.2
	Specific Conductance (Field)	785 umho/cm		SM2510B
	Temperature	18.64 °C		SM2550B(2)
	Turbidity (Hach)	5.36 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	0 Lookup		Observation

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SiteID: WMI-02-0010 Sample Date: 08/18/2014 IDEM Sample #: AB18733
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	136.9 %		ASTM D888-09(C)
DO	12.57 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	852 umho/cm		SM2510B
Temperature	19.63 °C		SM2550B(2)
Turbidity (Hach)	3.89 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087354	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	360 mg/L	1	SM2320B
Chloride	21 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	520 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
Sulfate	72 mg/L	25	EPA 300.0
Lab ID # 3087355	Result	Reporting Limit	Method
Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
Calcium (Total)	86 mg/L	0.1	EPA 200.7
Magnesium (Total)	44 mg/L	0.1	EPA 200.7
Lab ID # 3087356	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087357	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
Lab ID # 3087358	Result	Reporting Limit	Method
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
Lab ID # 3087359	Result	Reporting Limit	Method
TOC	2.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25784			
COD	11 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB18733			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	178.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0010 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19046
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	116.7 %		ASTM D888-09(C)
DO	11.88 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	870 umho/cm		SM2510B
Temperature	14.41 °C		SM2550B(2)
Turbidity (Hach)	9.26 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105374			
Alkalinity (as CaCO3)	340 mg/L	1	SM2320B
Chloride	41 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	10 mg/L	10	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	500 mg/L	10	SM2540C
Sulfate	65 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105375			
Hardness (as CaCO3)	410 mg/L	0.66	SM2340B
Calcium (Total)	95 mg/L	0.1	EPA 200.7
Magnesium (Total)	40 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105376			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105377			
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105378	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3105379	TOC	4 mg/L	0.5	SM5310C
AA28030	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.44 mg/L	0.3	SM4500N(Org)-B
AB19046	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	648.8 MPN/100mL	1	SM9223B

SiteID: WMI-02-0010 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19229
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	99.7 %	ASTM D888-09(C)
	DO	10.9 mg/L	ASTM D888-09(C)
	pH (Field)	7.86 SU	EPA 150.2
	Specific Conductance (Field)	919 umho/cm	SM2510B
	Temperature	11.21 °C	SM2550B(2)
	Turbidity (Hach)	4.51 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130300	Alkalinity (as CaCO3)	370 mg/L	1	SM2320B
	Chloride	44 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	550 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	530 mg/L	10	SM2540C
	Sulfate	58 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130301	Hardness (as CaCO3)	430 mg/L	0.66	SM2340B
	Calcium (Total)	98 mg/L	0.1	EPA 200.7
	Magnesium (Total)	42 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130302	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130303	Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
3130304	Phosphorus, Total	0.16 mg/L	0.05	SM4500P-E
3130305	TOC	3.8 mg/L	0.5	SM5310C
AA31605	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB19229	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	248.1 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0011 **USGS Hydrologic Unit:** 051201030204
Stream Name: Tributary of Bush Creek **County:** Randolph
Description: CR 500 N **Latitude:** 40 14 7.73395 **Longitude:** -85 7 43.52362
Drainage: 4.196 **Site Number:** 14T-103

SiteID: WMI-02-0011 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16189
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	107.9 %		ASTM D888-09(C)
DO	11.33 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	646 umho/cm		SM2510B
Temperature	13.03 °C		SM2550B(2)
Turbidity (Hach)	17 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #</u> 3010713	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	29 mg/L	6	EPA 300.0
Fluoride	0.3 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	11 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	32 mg/L	15	EPA 300.0

<u>Lab ID #</u> 3010714	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	73 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7

<u>Lab ID #</u> 3010715	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

<u>Lab ID #</u> 3010716	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Nitrate+Nitrite	4.5 mg/L	0.1	EPA 353.2

<u>Lab ID #</u> 3010717	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010718	TOC	3.2 mg/L	0.5	SM5310C
AA14497				
	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.49 mg/L	0.3	SM4500N(Org)-B
AB16189				
	Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
	E. coli	307.6 MPN/100mL	1	SM9223B

SiteID: WMI-02-0011 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16433
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	141.4 %		ASTM D888-09(C)
	DO	14.85 mg/L		ASTM D888-09(C)
	pH (Field)	8.17 SU		EPA 150.2
	Specific Conductance (Field)	665 umho/cm		SM2510B
	Temperature	13.01 °C		SM2550B(2)
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16433				
	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	69.1 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0011 Sample Date: 04/28/2014 IDEM Sample #: AB16505
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	86 %		ASTM D888-09(C)
DO	9.71 mg/L		ASTM D888-09(C)
pH (Field)	7.65 SU		EPA 150.2
Specific Conductance (Field)	456 umho/cm		SM2510B
Temperature	9.93 °C		SM2550B(2)
Turbidity (Hach)	440 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16505			
E. coli	2419.6 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16505a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0011 Sample Date: 05/05/2014 IDEM Sample #: AB16824
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	112 %		ASTM D888-09(C)
DO	12.4 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	678 umho/cm		SM2510B
Temperature	10.81 °C		SM2550B(2)
Turbidity (Hach)	5.55 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16824			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	156.5 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0011

Sample Date: 05/12/2014

IDEM Sample #: AB16957

Water Flow Type Glide

Water Appearance Clear

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	105.9 %	ASTM D888-09(C)
	DO	9.64 mg/L	ASTM D888-09(C)
	pH (Field)	7.81 SU	EPA 150.2
	Specific Conductance (Field)	699 umho/cm	SM2510B
	Temperature	19.87 °C	SM2550B(2)
	Turbidity (Hach)	9.99 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation
Lab ID # 3026775	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	280 mg/L	1 SM2320B
	Chloride	29 mg/L	10 EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10 SM2540D
	Solids, Total (TS)	400 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10 SM2540C
	Sulfate	47 mg/L	25 EPA 300.0
Lab ID # 3026776	Result	Reporting Limit	Method
	Hardness (as CaCO3)	320 mg/L	0.66 SM2340B
	Calcium (Total)	68 mg/L	0.1 EPA 200.7
	Magnesium (Total)	37 mg/L	0.1 EPA 200.7
Lab ID # 3026777	Result	Reporting Limit	Method
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D
Lab ID # 3026778	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1 EPA 353.2
Lab ID # 3026779	Result	Reporting Limit	Method
	Phosphorus, Total	0.06 mg/L	0.05 SM4500P-E
Lab ID # 3026780	Result	Reporting Limit	Method
	TOC	3.9 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17804			
COD	9 mg/L	10	EPA 410.4
TKN	0.55 mg/L	0.3	SM4500N(Org)-B
AB16957			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: WMI-02-0011 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17370
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	88.3 %		ASTM D888-09(C)
DO	8.6 mg/L		ASTM D888-09(C)
pH (Field)	7.55 SU		EPA 150.2
Specific Conductance (Field)	624 umho/cm		SM2510B
Temperature	16.23 °C		SM2550B(2)
Turbidity (Hach)	57.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042380			
Alkalinity (as CaCO3)	190 mg/L	1	SM2320B
Chloride	24 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	27 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042381			
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	70 mg/L	0.1	EPA 200.7
Magnesium (Total)	29 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042382			
Nitrogen, Ammonia	0.6 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042383			
Nitrogen, Nitrate+Nitrite	18 mg/L	1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042384	Phosphorus, Total	0.22 mg/L	0.05	SM4500P-E
3042385	TOC	5.4 mg/L	0.5	SM5310C
AA20578	COD	16 mg/L	10	EPA 410.4
	TKN	1.5 mg/L	0.3	SM4500N(Org)-B
AB17370	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	1732.9 MPN/100mL	1	SM9223B

SiteID: WMI-02-0011 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17544
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	74.3 %	ASTM D888-09(C)
	DO	6.8 mg/L	ASTM D888-09(C)
	pH (Field)	7.9 SU	EPA 150.2
	Specific Conductance (Field)	767 umho/cm	SM2510B
	Temperature	19.65 °C	SM2550B(2)
	Turbidity (Hach)	13.1 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060542	Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
	Chloride	25 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	470 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
	Sulfate	60 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060543	Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
	Calcium (Total)	83 mg/L	0.1	EPA 200.7
	Magnesium (Total)	43 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060544	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060545	Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2
3060546	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
3060547	TOC	3.4 mg/L	0.5	SM5310C
AA22923	COD	7 mg/L	10	EPA 410.4
	TKN	0.68 mg/L	0.3	SM4500N(Org)-B
AB17544	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-02-0011 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18396
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q2 turb =79.3

Lab ID #	Result	Reporting Limit	Method
	% Sat	73.8 %	ASTM D888-09(C)
	DO	6.72 mg/L	ASTM D888-09(C)
	pH (Field)	7.81 SU	EPA 150.2
	Specific Conductance (Field)	635 umho/cm	SM2510B
	Temperature	18.42 °C	SM2550B(2)
	Turbidity (Hach)	12.2 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-02-0011 Sample Date: 08/18/2014 IDEM Sample #: AB18734
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	45 %		ASTM D888-09(C)
DO	3.88 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	782 umho/cm		SM2510B
Temperature	18.51 °C		SM2550B(2)
Turbidity (Hach)	6.35 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087362	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	26 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	66 mg/L	25	EPA 300.0

Lab ID # 3087363	Result	Reporting Limit	Method
Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	44 mg/L	0.1	EPA 200.7

Lab ID # 3087364	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.4 mg/L	0.1	SM4500NH3-D

Lab ID # 3087365	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.2

Lab ID # 3087366	Result	Reporting Limit	Method
Phosphorus, Total	0.3 mg/L	0.05	SM4500P-E

Lab ID # 3087367	Result	Reporting Limit	Method
TOC	5.5 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25785			
COD	17 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB18734			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-02-0011 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19047
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	78.4 %		ASTM D888-09(C)
DO	8.13 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	660 umho/cm		SM2510B
Temperature	13.71 °C		SM2550B(2)
Turbidity (Hach)	8.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105382			
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	27 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	39 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105383			
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	69 mg/L	0.1	EPA 200.7
Magnesium (Total)	32 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105384			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105385			
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105386	Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
3105387	TOC	5.2 mg/L	0.5	SM5310C
AA28031	COD	12 mg/L	10	EPA 410.4
	TKN	0.52 mg/L	0.3	SM4500N(Org)-B
AB19047	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	410.6 MPN/100mL	1	SM9223B

SiteID: WMI-02-0011 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19230
Water Flow Type Glide **Water Appearance** Sheen **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Sheen on Surface

Lab ID #	Result	Reporting Limit	Method
	% Sat	84 %	ASTM D888-09(C)
	DO	9.35 mg/L	ASTM D888-09(C)
	pH (Field)	7.81 SU	EPA 150.2
	Specific Conductance (Field)	850 umho/cm	SM2510B
	Temperature	10.51 °C	SM2550B(2)
	Turbidity (Hach)	7.23 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130308	Alkalinity (as CaCO3)	340 mg/L	1	SM2320B
	Chloride	51 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	510 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
	Sulfate	51 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130309	Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
	Calcium (Total)	83 mg/L	0.1	EPA 200.7
	Magnesium (Total)	43 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130310	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130311	Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.2
3130312	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3130313	TOC	4.1 mg/L	0.5	SM5310C
AA31606	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB19230	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	547.5 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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SiteID: WMI-02-0012 **USGS Hydrologic Unit:** 051201030202
Stream Name: Bear Creek **County:** Randolph
Description: CR 800 N **Latitude:** 40 16 45.83845 **Longitude:** -85 4 32.05725
Drainage: 15.382 **Site Number:** 14T-104

SiteID: WMI-02-0012 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16196
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	93.8 %		ASTM D888-09(C)
DO	9.74 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	579 umho/cm		SM2510B
Temperature	13.58 °C		SM2550B(2)
Turbidity (Hach)	60.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010721	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	18 mg/L	6	EPA 300.0
Fluoride	0.3 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	34 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	30 mg/L	15	EPA 300.0

Lab ID # 3010722	Result	Reporting Limit	Method
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	72 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3010723	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010724	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	6.1 mg/L	0.1	EPA 353.2

Lab ID # 3010725	Result	Reporting Limit	Method
Phosphorus, Total	0.19 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010726	TOC	4.4 mg/L	0.5	SM5310C
AA14498	COD	5.6 mg/L	10	EPA 410.4
	TKN	0.78 mg/L	0.3	SM4500N(Org)-B
AB16196	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	1732.9 MPN/100mL	1	SM9223B

SiteID: WMI-02-0012 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16440
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	150.8 %		ASTM D888-09(C)
	DO	15.62 mg/L		ASTM D888-09(C)
	pH (Field)	8.52 SU		EPA 150.2
	Specific Conductance (Field)	630 umho/cm		SM2510B
	Temperature	13.78 °C		SM2550B(2)
	Turbidity (Hach)	6.56 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16440	Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
	E. coli	307.6 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0012 Sample Date: 04/28/2014 IDEM Sample #: AB16512
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	88.2 %		ASTM D888-09(C)
DO	9.87 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	460 umho/cm		SM2510B
Temperature	10.27 °C		SM2550B(2)
Turbidity (Hach)	528 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16512			
E. coli	1986.3 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16512a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0012 Sample Date: 05/05/2014 IDEM Sample #: AB16831
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	124.5 %		ASTM D888-09(C)
DO	13.65 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	648 umho/cm		SM2510B
Temperature	11.3 °C		SM2550B(2)
Turbidity (Hach)	5.88 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16831			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	307.6 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0012 **Sample Date:** 05/12/2014 **IDEM Sample #:** AB16964
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	122.3 %	ASTM D888-09(C)
	DO	10.98 mg/L	ASTM D888-09(C)
	pH (Field)	8.09 SU	EPA 150.2
	Specific Conductance (Field)	666 umho/cm	SM2510B
	Temperature	20.53 °C	SM2550B(2)
	Turbidity (Hach)	11.1 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation
Lab ID # 3026783	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	270 mg/L	1 SM2320B
	Chloride	25 mg/L	10 EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10 SM2540D
	Solids, Total (TS)	380 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	350 mg/L	10 SM2540C
	Sulfate	45 mg/L	25 EPA 300.0
Lab ID # 3026784	Result	Reporting Limit	Method
	Hardness (as CaCO3)	330 mg/L	0.66 SM2340B
	Calcium (Total)	71 mg/L	0.1 EPA 200.7
	Magnesium (Total)	36 mg/L	0.1 EPA 200.7
Lab ID # 3026785	Result	Reporting Limit	Method
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D
Lab ID # 3026786	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1 EPA 353.2
Lab ID # 3026787	Result	Reporting Limit	Method
	Phosphorus, Total	0.08 mg/L	0.05 SM4500P-E
Lab ID # 3026788	Result	Reporting Limit	Method
	TOC	3.9 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17805			
COD	8 mg/L	10	EPA 410.4
TKN	0.75 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16964			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	980.4 MPN/100mL	1	SM9223B

SiteID: WMI-02-0012 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17371
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	83.7 %		ASTM D888-09(C)
DO	8.05 mg/L		ASTM D888-09(C)
pH (Field)	7.48 SU		EPA 150.2
Specific Conductance (Field)	593 umho/cm		SM2510B
Temperature	17.15 °C		SM2550B(2)
Turbidity (Hach)	98.8 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042388			
Alkalinity (as CaCO3)	140 mg/L	1	SM2320B
Chloride	21 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	44 mg/L	10	SM2540D
Solids, Total (TS)	520 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042389			
Hardness (as CaCO3)	260 mg/L	0.66	SM2340B
Calcium (Total)	66 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042390			
Nitrogen, Ammonia	1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042391			
Nitrogen, Nitrate+Nitrite	24 mg/L	1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042392	Phosphorus, Total	0.4 mg/L	0.05	SM4500P-E
3042393	TOC	9 mg/L	0.5	SM5310C
AA20579	COD	29 mg/L	10	EPA 410.4
	TKN	2.6 mg/L	0.3	SM4500N(Org)-B
AB17371	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-02-0012 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17545
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method	
	% Sat	117.9 %	ASTM D888-09(C)	
	DO	10.6 mg/L	ASTM D888-09(C)	
	pH (Field)	8.26 SU	EPA 150.2	
	Specific Conductance (Field)	737 umho/cm	SM2510B	
	Temperature	20.48 °C	SM2550B(2)	
	Turbidity (Hach)	10.9 NTU	EPA 180.1	
	Air Temp	4 Lookup	Observation	
	Sky Conditions	4 Lookup	Observation	
	Wind Direction	27 Lookup	Observation	
	Wind Strength	2 Lookup	Observation	
3060550	Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
	Chloride	24 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	440 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
	Sulfate	52 mg/L	5	EPA 300.0
3060551	Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
	Calcium (Total)	89 mg/L	0.1	EPA 200.7
	Magnesium (Total)	39 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060552	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060553	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	EPA 353.2
3060554	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3060555	TOC	3.5 mg/L	0.5	SM5310C
AA22924	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.38 mg/L	0.3	SM4500N(Org)-B
AB17545	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	517.2 MPN/100mL	1	SM9223B

SiteID: WMI-02-0012 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18395
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q2 turb = 4.2

Lab ID #	Result	Reporting Limit	Method
	% Sat	120.7 %	ASTM D888-09(C)
	DO	10.82 mg/L	ASTM D888-09(C)
	pH (Field)	8.14 SU	EPA 150.2
	Specific Conductance (Field)	679 umho/cm	SM2510B
	Temperature	19.19 °C	SM2550B(2)
	Turbidity (Hach)	3.8 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-02-0012 Sample Date: 08/18/2014 IDEM Sample #: AB18735
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	109 %		ASTM D888-09(C)
DO	9.79 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	713 umho/cm		SM2510B
Temperature	20.49 °C		SM2550B(2)
Turbidity (Hach)	8.26 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID # 3087370	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
Chloride	19 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	53 mg/L	25	EPA 300.0
Lab ID # 3087371	Result	Reporting Limit	Method
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	68 mg/L	0.1	EPA 200.7
Magnesium (Total)	40 mg/L	0.1	EPA 200.7
Lab ID # 3087372	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087373	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.2
Lab ID # 3087374	Result	Reporting Limit	Method
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
Lab ID # 3087375	Result	Reporting Limit	Method
TOC	4.6 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25786			
COD	15 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB18735			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	547.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0012 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19048
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	106.5 %		ASTM D888-09(C)
DO	10.72 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	614 umho/cm		SM2510B
Temperature	15 °C		SM2550B(2)
Turbidity (Hach)	9.13 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105390			
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	21 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	42 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105391			
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	29 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105392			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105393			
Nitrogen, Nitrate+Nitrite	2.6 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105394	Phosphorus, Total	0.15 mg/L	0.05	SM4500P-E
3105395	TOC	6.6 mg/L	0.5	SM5310C
AA28032	COD	15 mg/L	10	EPA 410.4
	TKN	0.6 mg/L	0.3	SM4500N(Org)-B
AB19048	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	410.6 MPN/100mL	1	SM9223B

SiteID: WMI-02-0012 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19231
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method	
	% Sat	116.4 %	ASTM D888-09(C)	
	DO	12.49 mg/L	ASTM D888-09(C)	
	pH (Field)	8.02 SU	EPA 150.2	
	Specific Conductance (Field)	775 umho/cm	SM2510B	
	Temperature	12.02 °C	SM2550B(2)	
	Turbidity (Hach)	2.15 NTU	EPA 180.1	
	Air Temp	4 Lookup	Observation	
	Sky Conditions	2 Lookup	Observation	
	Wind Direction	18 Lookup	Observation	
	Wind Strength	2 Lookup	Observation	
3130316	Alkalinity (as CaCO3)	330 mg/L	1	SM2320B
	Chloride	24 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	450 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
	Sulfate	45 mg/L	25	EPA 300.0
3130317	Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
	Calcium (Total)	88 mg/L	0.1	EPA 200.7
	Magnesium (Total)	40 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130318	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130319	Nitrogen, Nitrate+Nitrite 1.8 mg/L	0.1	EPA 353.2
3130320	Phosphorus, Total 0.08 mg/L	0.05	SM4500P-E
3130321	TOC 5 mg/L	0.5	SM5310C
AA31607	COD 8 mg/L	10	EPA 410.4
	TKN < 0.3 mg/L	0.3	SM4500N(Org)-B
AB19231	Coliforms (Total) 1986.3 MPN/100mL	1	SM9223B
	E. coli 83 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-02-0013 **USGS Hydrologic Unit:** 051201030203
Stream Name: Fetid Creek **County:** Randolph
Description: CR 800 N **Latitude:** 40 16 46.68304 **Longitude:** -85 1 36.12508
Drainage: 3.957 **Site Number:** 14T-105

SiteID: WMI-02-0013 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16197
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	87 %		ASTM D888-09(C)
DO	9.46 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	585 umho/cm		SM2510B
Temperature	11.53 °C		SM2550B(2)
Turbidity (Hach)	130 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	5 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010729			
Alkalinity (as CaCO3)	210 mg/L	1	SM2320B
Chloride	19 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	62 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	29 mg/L	15	EPA 300.0

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010730			
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	67 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010731			
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010732			
Nitrogen, Nitrate+Nitrite	8.1 mg/L	0.1	EPA 353.2

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010733			
Phosphorus, Total	0.47 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010734	TOC	5.5 mg/L	0.5	SM5310C
AA14499	COD	7 mg/L	10	EPA 410.4
	TKN	0.75 mg/L	0.3	SM4500N(Org)-B
AB16197	Coliforms (Total)	2098 MPN/100mL	10	SM9223B
	E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: WMI-02-0013 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16441
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	93.1 %		ASTM D888-09(C)
	DO	9.94 mg/L		ASTM D888-09(C)
	pH (Field)	8.04 SU		EPA 150.2
	Specific Conductance (Field)	692 umho/cm		SM2510B
	Temperature	12.36 °C		SM2550B(2)
	Turbidity (Hach)	12.1 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16441	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	201.4 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0013 Sample Date: 04/28/2014 IDEM Sample #: AB16513
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	84.2 %		ASTM D888-09(C)
DO	9.56 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	551 umho/cm		SM2510B
Temperature	9.66 °C		SM2550B(2)
Turbidity (Hach)	258 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16513			
E. coli	2419.6 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16513a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0013 Sample Date: 05/05/2014 IDEM Sample #: AB16832
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	98.7 %		ASTM D888-09(C)
DO	11.08 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	714 umho/cm		SM2510B
Temperature	10.15 °C		SM2550B(2)
Turbidity (Hach)	10.1 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16832			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0013 **Sample Date:** 05/12/2014 **IDEM Sample #:** AB16965
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	85.9 %	ASTM D888-09(C)
	DO	8.07 mg/L	ASTM D888-09(C)
	pH (Field)	7.67 SU	EPA 150.2
	Specific Conductance (Field)	674 umho/cm	SM2510B
	Temperature	18.26 °C	SM2550B(2)
	Turbidity (Hach)	33.2 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation
Lab ID # 3026791	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	250 mg/L	1 SM2320B
	Chloride	23 mg/L	10 EPA 300.0
	Solids, Suspended Total, (TSS)	18 mg/L	10 SM2540D
	Solids, Total (TS)	400 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	370 mg/L	10 SM2540C
	Sulfate	45 mg/L	25 EPA 300.0
Lab ID # 3026792	Result	Reporting Limit	Method
	Hardness (as CaCO3)	330 mg/L	0.66 SM2340B
	Calcium (Total)	72 mg/L	0.1 EPA 200.7
	Magnesium (Total)	36 mg/L	0.1 EPA 200.7
Lab ID # 3026793	Result	Reporting Limit	Method
	Nitrogen, Ammonia	0.2 mg/L	0.1 SM4500NH3-D
Lab ID # 3026794	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	5.8 mg/L	0.1 EPA 353.2
Lab ID # 3026795	Result	Reporting Limit	Method
	Phosphorus, Total	0.15 mg/L	0.05 SM4500P-E
Lab ID # 3026796	Result	Reporting Limit	Method
	TOC	4.1 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17806			
COD	12 mg/L	10	EPA 410.4
TKN	1 mg/L	0.3	SM4500N(Org)-B
AB16965			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	2419.6 MPN/100mL	1	SM9223B

SiteID: WMI-02-0013 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17372
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	83.9 %		ASTM D888-09(C)
DO	8.34 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	707 umho/cm		SM2510B
Temperature	15.58 °C		SM2550B(2)
Turbidity (Hach)	52 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042396			
Alkalinity (as CaCO3)	190 mg/L	1	SM2320B
Chloride	22 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	23 mg/L	10	SM2540D
Solids, Total (TS)	540 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	530 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042397			
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	80 mg/L	0.1	EPA 200.7
Magnesium (Total)	33 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042398			
Nitrogen, Ammonia	0.3 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042399			
Nitrogen, Nitrate+Nitrite	28 mg/L	1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3042400	Phosphorus, Total	0.35 mg/L	0.05	SM4500P-E
3042401	TOC	6.6 mg/L	0.5	SM5310C
AA20580	COD	21 mg/L	10	EPA 410.4
	TKN	1.4 mg/L	0.3	SM4500N(Org)-B
AB17372	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	1046.2 MPN/100mL	1	SM9223B

SiteID: WMI-02-0013 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17546
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	74.8 %		ASTM D888-09(C)
	DO	6.92 mg/L		ASTM D888-09(C)
	pH (Field)	7.94 SU		EPA 150.2
	Specific Conductance (Field)	792 umho/cm		SM2510B
	Temperature	19.13 °C		SM2550B(2)
	Turbidity (Hach)	19.8 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3060558	Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
	Chloride	28 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	490 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
	Sulfate	58 mg/L	5	EPA 300.0

Lab ID #		Result	Reporting Limit	Method
3060559	Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
	Calcium (Total)	93 mg/L	0.1	EPA 200.7
	Magnesium (Total)	40 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060560	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060561	Nitrogen, Nitrate+Nitrite	5.4 mg/L	0.1	EPA 353.2
3060562	Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E
3060563	TOC	3.7 mg/L	0.5	SM5310C
AA22925	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.45 mg/L	0.3	SM4500N(Org)-B
AB17546	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	686.7 MPN/100mL	1	SM9223B

SiteID: WMI-02-0013 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18394
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q2 turb= 35.7

Lab ID #	Result	Reporting Limit	Method
	% Sat	59.9 %	ASTM D888-09(C)
	DO	5.64 mg/L	ASTM D888-09(C)
	pH (Field)	7.81 SU	EPA 150.2
	Specific Conductance (Field)	722 umho/cm	SM2510B
	Temperature	16.81 °C	SM2550B(2)
	Turbidity (Hach)	22.3 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-02-0013 Sample Date: 08/18/2014 IDEM Sample #: AB18736
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	42 %		ASTM D888-09(C)
DO	3.95 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	756 umho/cm		SM2510B
Temperature	18.23 °C		SM2550B(2)
Turbidity (Hach)	14 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID # 3087378	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
Chloride	20 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	11 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	54 mg/L	25	EPA 300.0
Lab ID # 3087379	Result	Reporting Limit	Method
Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
Calcium (Total)	80 mg/L	0.1	EPA 200.7
Magnesium (Total)	38 mg/L	0.1	EPA 200.7
Lab ID # 3087380	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087381	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
Lab ID # 3087382	Result	Reporting Limit	Method
Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E
Lab ID # 3087383	Result	Reporting Limit	Method
TOC	5.2 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25787			
COD	18 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18736			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: WMI-02-0013 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19049
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	67.1 %		ASTM D888-09(C)
DO	7.1 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	564 umho/cm		SM2510B
Temperature	13.27 °C		SM2550B(2)
Turbidity (Hach)	17 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105398			
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	17 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	35 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105399			
Hardness (as CaCO3)	270 mg/L	0.66	SM2340B
Calcium (Total)	64 mg/L	0.1	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105400			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105401			
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3105402	Phosphorus, Total 0.22 mg/L	0.05	SM4500P-E
3105403	TOC 10 mg/L	0.5	SM5310C
AA28033	COD 28 mg/L	10	EPA 410.4
	TKN 1.4 mg/L	0.3	SM4500N(Org)-B
AB19049	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 1986.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0013 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19232
Water Flow Type Stagnant **Water Appearance** Black **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Stagnant, Organic Decay.

Lab ID #	Result	Reporting Limit	Method
	% Sat 8 %		ASTM D888-09(C)
	DO 0.91 mg/L		ASTM D888-09(C)
	pH (Field) 7.33 SU		EPA 150.2
	Specific Conductance (Field) 726 umho/cm		SM2510B
	Temperature 9.37 °C		SM2550B(2)
	Turbidity (Hach) 23.2 NTU		EPA 180.1
	Air Temp 4 Lookup		Observation
	Sky Conditions 1 Lookup		Observation
	Wind Direction 18 Lookup		Observation
	Wind Strength 2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130324	Alkalinity (as CaCO3) 320 mg/L	1	SM2320B
	Chloride 25 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) 14 mg/L	10	SM2540D
	Solids, Total (TS) 440 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 420 mg/L	10	SM2540C
	Sulfate 35 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3130325	Hardness (as CaCO3) 350 mg/L	0.66	SM2340B
	Calcium (Total) 82 mg/L	0.1	EPA 200.7
	Magnesium (Total) 35 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130326	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130327	Nitrogen, Nitrate+Nitrite < 0.1 mg/L	0.1	EPA 353.2
3130328	Phosphorus, Total 0.52 mg/L	0.05	SM4500P-E
3130329	TOC 19 mg/L	0.5	SM5310C
AA31608	COD 37 mg/L	10	EPA 410.4
	TKN 1.2 mg/L	0.3	SM4500N(Org)-B
AB19232	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 63.1 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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Surface Water Results Summary**

SiteID: WMI020-0002 **USGS Hydrologic Unit:** 051201030203
Stream Name: Mississinewa River **County:** Randolph
Description: CR 100 W, near Ridgeville **Latitude:** 40 16 48.00000 **Longitude:** -84 59 43.00000
Drainage: 133 **Site Number:** 14T-106

SiteID: WMI020-0002 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16198
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	89.8 %	ASTM D888-09(C)
	DO	9.41 mg/L	ASTM D888-09(C)
	pH (Field)	7.98 SU	EPA 150.2
	Specific Conductance (Field)	620 umho/cm	SM2510B
	Temperature	13.2 °C	SM2550B(2)
	Turbidity (Hach)	41.9 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	5 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3010737	Alkalinity (as CaCO3)	230 mg/L	1 SM2320B
	Chloride	23 mg/L	6 EPA 300.0
	Fluoride	0.2 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	27 mg/L	10 SM2540D
	Solids, Total (TS)	390 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	340 mg/L	10 SM2540C
	Sulfate	33 mg/L	15 EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3010738	Hardness (as CaCO3)	310 mg/L	0.66 SM2340B
	Calcium (Total)	77 mg/L	0.1 EPA 200.7
	Magnesium (Total)	29 mg/L	0.1 EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3010739	Nitrogen, Ammonia	0.2 mg/L	0.1 SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3010740	Nitrogen, Nitrate+Nitrite	6.9 mg/L	0.1 EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3010741	Phosphorus, Total	0.23 mg/L	0.05 SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010742	TOC	3.9 mg/L	0.5	SM5310C
AA14500	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.91 mg/L	0.3	SM4500N(Org)-B
AB16198	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	980.4 MPN/100mL	1	SM9223B

SiteID: WMI020-0002 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16442
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	141.8 %		ASTM D888-09(C)
	DO	14.78 mg/L		ASTM D888-09(C)
	pH (Field)	8.35 SU		EPA 150.2
	Specific Conductance (Field)	651 umho/cm		SM2510B
	Temperature	13.36 °C		SM2550B(2)
	Turbidity (Hach)	5.78 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16442	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	135.4 MPN/100mL	1	SM9223B

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SiteID: WMI020-0002 Sample Date: 04/28/2014 IDEM Sample #: AB16514
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	102.7 %		ASTM D888-09(C)
DO	11.16 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	631 umho/cm		SM2510B
Temperature	11.58 °C		SM2550B(2)
Turbidity (Hach)	15.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation
Lab ID # AB16514	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WMI020-0002 Sample Date: 05/05/2014 IDEM Sample #: AB16833
 Water Flow Type: Run Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	134.4 %		ASTM D888-09(C)
DO	14.59 mg/L		ASTM D888-09(C)
pH (Field)	8.19 SU		EPA 150.2
Specific Conductance (Field)	639 umho/cm		SM2510B
Temperature	12.01 °C		SM2550B(2)
Turbidity (Hach)	4.66 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation
Lab ID # AB16833	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	209.8 MPN/100mL	1	SM9223B

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SiteID: WMI020-0002 Sample Date: 05/12/2014 IDEM Sample #: AB16966
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	79 %		ASTM D888-09(C)
DO	7.37 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	606 umho/cm		SM2510B
Temperature	18.55 °C		SM2550B(2)
Turbidity (Hach)	154 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3026799	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	1	SM2320B
Chloride	28 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	89 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	37 mg/L	25	EPA 300.0

Lab ID # 3026800	Result	Reporting Limit	Method
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	69 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3026801	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

Lab ID # 3026802	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	4.3 mg/L	0.1	EPA 353.2

Lab ID # 3026803	Result	Reporting Limit	Method
Phosphorus, Total	0.43 mg/L	0.05	SM4500P-E

Lab ID # 3026804	Result	Reporting Limit	Method
TOC	5.2 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17807			
COD	22 mg/L	10	EPA 410.4
TKN	2.2 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16966a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	2603 MPN/100mL	10	SM9223B

SiteID: WMI020-0002 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17373
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	87.8 %		ASTM D888-09(C)
DO	8.58 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	564 umho/cm		SM2510B
Temperature	16.45 °C		SM2550B(2)
Turbidity (Hach)	148 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042404			
Alkalinity (as CaCO3)	160 mg/L	1	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	81 mg/L	10	SM2540D
Solids, Total (TS)	510 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042405			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042406			
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042407			
Nitrogen, Nitrate+Nitrite	18 mg/L	1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042408	Phosphorus, Total	0.67 mg/L	0.05	SM4500P-E
3042409	TOC	6.4 mg/L	0.5	SM5310C
AA20581	COD	21 mg/L	10	EPA 410.4
	TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB17373a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
	E. coli	4884 MPN/100mL	10	SM9223B

SiteID: WMI020-0002 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17547
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	132 %	ASTM D888-09(C)
	DO	12.06 mg/L	ASTM D888-09(C)
	pH (Field)	8.26 SU	EPA 150.2
	Specific Conductance (Field)	702 umho/cm	SM2510B
	Temperature	19.66 °C	SM2550B(2)
	Turbidity (Hach)	8.32 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060566	Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
	Chloride	26 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	420 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	47 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060567	Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
	Calcium (Total)	88 mg/L	0.1	EPA 200.7
	Magnesium (Total)	33 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3060568	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060569	Nitrogen, Nitrate+Nitrite	3.8 mg/L	0.1	EPA 353.2
3060570	Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E
3060571	TOC	3 mg/L	0.5	SM5310C
AA22926	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB17547	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: WMI020-0002 **Sample Date:** 08/04/2014 **IDEM Sample #:** AB18399
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	83 %		SM4500-OG
	DO	7.32 mg/L		SM4500-OG
	pH (Field)	8.08 SU		EPA 150.2
	Specific Conductance (Field)	683 umho/cm		SM2510B
	Temperature	20.36 °C		SM2550B(2)
	Turbidity (Hach)	5.74 NTU		EPA 180.1
	Air Temp	5 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	0 Lookup		Observation

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SiteID: WMI020-0002 Sample Date: 08/18/2014 IDEM Sample #: AB18737
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	96.7 %		ASTM D888-09(C)
DO	8.85 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	755 umho/cm		SM2510B
Temperature	19.54 °C		SM2550B(2)
Turbidity (Hach)	5.04 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	24 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID # 3087401	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	34 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	55 mg/L	25	EPA 300.0
Lab ID # 3087402	Result	Reporting Limit	Method
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	78 mg/L	0.1	EPA 200.7
Magnesium (Total)	33 mg/L	0.1	EPA 200.7
Lab ID # 3087403	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087404	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2
Lab ID # 3087405	Result	Reporting Limit	Method
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
Lab ID # 3087406	Result	Reporting Limit	Method
TOC	3.7 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25788			
COD	13 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18737			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	456.9 MPN/100mL	1	SM9223B

SiteID: WMI020-0002 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19050
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	93.5 %		ASTM D888-09(C)
DO	9.71 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	727 umho/cm		SM2510B
Temperature	13.56 °C		SM2550B(2)
Turbidity (Hach)	6.32 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105406			
Alkalinity (as CaCO3)	260 mg/L	1	SM2320B
Chloride	40 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	48 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105407			
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105408			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105409			
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105410	Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
3105411	TOC	4.8 mg/L	0.5	SM5310C
AA28034	COD	13 mg/L	10	EPA 410.4
	TKN	0.6 mg/L	0.3	SM4500N(Org)-B
AB19050	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	313 MPN/100mL	1	SM9223B

SiteID: WMI020-0002 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19233
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	88.7 %	ASTM D888-09(C)
	DO	9.74 mg/L	ASTM D888-09(C)
	pH (Field)	7.82 SU	EPA 150.2
	Specific Conductance (Field)	778 umho/cm	SM2510B
	Temperature	11.05 °C	SM2550B(2)
	Turbidity (Hach)	2.75 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130332	Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
	Chloride	33 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	450 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
	Sulfate	41 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130333	Hardness (as CaCO3)	350 mg/L	0.66	SM2340B
	Calcium (Total)	86 mg/L	0.1	EPA 200.7
	Magnesium (Total)	35 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130334	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130335	Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
3130336	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
3130337	TOC	5.6 mg/L	0.5	SM5310C
AA31609	COD	10 mg/L	10	EPA 410.4
	TKN	0.36 mg/L	0.3	SM4500N(Org)-B
AB19233	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	71.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0005 **USGS Hydrologic Unit:** 051201030201
Stream Name: Flesher Creek **County:** Jay
Description: CR 800 S **Latitude:** 40 19 22.35734 **Longitude:** -85 3 46.99468
Drainage: 7.265 **Site Number:** 14T-108

SiteID: WMI-02-0005 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16199
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	99.1 %		ASTM D888-09(C)
DO	10.61 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	605 umho/cm		SM2510B
Temperature	12.15 °C		SM2550B(2)
Turbidity (Hach)	14.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010780	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	18 mg/L	6	EPA 300.0
Fluoride	0.1 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	33 mg/L	15	EPA 300.0

Lab ID # 3010781	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	82 mg/L	0.1	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7

Lab ID # 3010782	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010783	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	5.6 mg/L	0.1	EPA 353.2

Lab ID # 3010784	Result	Reporting Limit	Method
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010785	TOC	3.6 mg/L	0.5	SM5310C
AA14501				
	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.66 mg/L	0.3	SM4500N(Org)-B
AB16199				
	Coliforms (Total)	387.3 MPN/100mL	1	SM9223B
	E. coli	66.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0005 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16443
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	116 %		ASTM D888-09(C)
	DO	12.53 mg/L		ASTM D888-09(C)
	pH (Field)	8.08 SU		EPA 150.2
	Specific Conductance (Field)	634 umho/cm		SM2510B
	Temperature	11.88 °C		SM2550B(2)
	Turbidity (Hach)	10.4 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16443				
	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	135.4 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0005 **Sample Date:** 04/28/2014 **IDEM Sample #:** AB16515
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Turbidity meter flashed 1000NTU, maxed out

Lab ID #	Result	Reporting Limit	Method
% Sat	85 %		ASTM D888-09(C)
DO	9.56 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	389 umho/cm		SM2510B
Temperature	10 °C		SM2550B(2)
Turbidity (Hach)	1000 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method	
AB16515a	E. coli	4106 MPN/100mL	10	SM9223B

Lab ID #	Result	Reporting Limit	Method	
AB16515b	Coliforms (Total)	64880 MPN/100mL	100	SM9223B

SiteID: WMI-02-0005 **Sample Date:** 05/05/2014 **IDEM Sample #:** AB16834
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	90.8 %		ASTM D888-09(C)
DO	10.11 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	624 umho/cm		SM2510B
Temperature	10.39 °C		SM2550B(2)
Turbidity (Hach)	10.2 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method	
AB16834	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	42 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0005 **Sample Date:** 05/12/2014 **IDEM Sample #:** AB16967
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	89.4 %	ASTM D888-09(C)
	DO	8.52 mg/L	ASTM D888-09(C)
	pH (Field)	7.64 SU	EPA 150.2
	Specific Conductance (Field)	527 umho/cm	SM2510B
	Temperature	17.56 °C	SM2550B(2)
	Turbidity (Hach)	105 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation
Lab ID # 3026807	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	150 mg/L	1 SM2320B
	Chloride	16 mg/L	10 EPA 300.0
	Solids, Suspended Total, (TSS)	34 mg/L	10 SM2540D
	Solids, Total (TS)	420 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10 SM2540C
	Sulfate	23 mg/L	5 EPA 300.0
Lab ID # 3026808	Result	Reporting Limit	Method
	Hardness (as CaCO3)	240 mg/L	0.66 SM2340B
	Calcium (Total)	65 mg/L	0.1 EPA 200.7
	Magnesium (Total)	21 mg/L	0.1 EPA 200.7
Lab ID # 3026809	Result	Reporting Limit	Method
	Nitrogen, Ammonia	0.7 mg/L	0.1 SM4500NH3-D
Lab ID # 3026810	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	14 mg/L	1 EPA 353.2
Lab ID # 3026811	Result	Reporting Limit	Method
	Phosphorus, Total	0.51 mg/L	0.05 SM4500P-E
Lab ID # 3026812	Result	Reporting Limit	Method
	TOC	10 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17808			
COD	27 mg/L	10	EPA 410.4
TKN	4.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16967a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	3873 MPN/100mL	10	SM9223B

SiteID: WMI-02-0005 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17374
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	75.3 %		ASTM D888-09(C)
DO	7.12 mg/L		ASTM D888-09(C)
pH (Field)	7.33 SU		EPA 150.2
Specific Conductance (Field)	390 umho/cm		SM2510B
Temperature	17.53 °C		SM2550B(2)
Turbidity (Hach)	139 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042412			
Alkalinity (as CaCO3)	110 mg/L	1	SM2320B
Chloride	8.9 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	44 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	12 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042413			
Hardness (as CaCO3)	200 mg/L	0.66	SM2340B
Calcium (Total)	51 mg/L	0.1	EPA 200.7
Magnesium (Total)	16 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042414			
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042415			
Nitrogen, Nitrate+Nitrite	13 mg/L	1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042416	Phosphorus, Total	0.55 mg/L	0.05	SM4500P-E
3042417	TOC	7.1 mg/L	0.5	SM5310C
AA20582	COD	23 mg/L	10	EPA 410.4
	TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB17374	E. coli	214.3 MPN/100mL	1	SM9223B
AB17374a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0005 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17548
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	86.8 %	ASTM D888-09(C)
	DO	8.03 mg/L	ASTM D888-09(C)
	pH (Field)	7.78 SU	EPA 150.2
	Specific Conductance (Field)	695 umho/cm	SM2510B
	Temperature	19.09 °C	SM2550B(2)
	Turbidity (Hach)	13.8 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060574	Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
	Chloride	23 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	420 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
	Sulfate	34 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060575	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	360 mg/L 98 mg/L 29 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060576	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060577	Nitrogen, Nitrate+Nitrite	3.2 mg/L	0.1	EPA 353.2
3060578	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
3060579	TOC	3.2 mg/L	0.5	SM5310C
AA22927	COD TKN	< 10 mg/L 0.36 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17548	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 517.2 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-02-0005 **Sample Date:** 08/04/2014 **IDEM Sample #:** AB18393
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	75.8 %	SM4500-OG
	DO	5.99 mg/L	SM4500-OG
	pH (Field)	7.75 SU	EPA 150.2
	Specific Conductance (Field)	622 umho/cm	SM2510B
	Temperature	20.25 °C	SM2550B(2)
	Turbidity (Hach)	7.58 NTU	EPA 180.1
	Air Temp	6 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-02-0005 Sample Date: 08/18/2014 IDEM Sample #: AB18738
 Water Flow Type Pool Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	75.3 %		ASTM D888-09(C)
DO	7.02 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	667 umho/cm		SM2510B
Temperature	18.65 °C		SM2550B(2)
Turbidity (Hach)	9.12 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID # 3087409	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	17 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	38 mg/L	25	EPA 300.0
Lab ID # 3087410	Result	Reporting Limit	Method
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	86 mg/L	0.1	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7
Lab ID # 3087411	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087412	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
Lab ID # 3087413	Result	Reporting Limit	Method
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
Lab ID # 3087414	Result	Reporting Limit	Method
TOC	3.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25789			
COD	10 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18738			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	14.8 MPN/100mL	1	SM9223B

SiteID: WMI-02-0005 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19051
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	74.5 %		ASTM D888-09(C)
DO	7.55 mg/L		ASTM D888-09(C)
pH (Field)	7.69 SU		EPA 150.2
Specific Conductance (Field)	722 umho/cm		SM2510B
Temperature	14.49 °C		SM2550B(2)
Turbidity (Hach)	18.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105414			
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	20 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	35 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105415			
Hardness (as CaCO3)	370 mg/L	0.66	SM2340B
Calcium (Total)	100 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105416			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105417			
Nitrogen, Nitrate+Nitrite	1.3 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3105418	Phosphorus, Total 0.14 mg/L	0.05	SM4500P-E
3105419	TOC 3.8 mg/L	0.5	SM5310C
AA28035	COD 6 mg/L	10	EPA 410.4
	TKN 0.44 mg/L	0.3	SM4500N(Org)-B
AB19051	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 770.1 MPN/100mL	1	SM9223B

SiteID: WMI-02-0005 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19234
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 79.5 %		ASTM D888-09(C)
	DO 8.68 mg/L		ASTM D888-09(C)
	pH (Field) 7.72 SU		EPA 150.2
	Specific Conductance (Field) 710 umho/cm		SM2510B
	Temperature 11.34 °C		SM2550B(2)
	Turbidity (Hach) 13.7 NTU		EPA 180.1
	Air Temp 4 Lookup		Observation
	Sky Conditions 1 Lookup		Observation
	Wind Direction 18 Lookup		Observation
	Wind Strength 2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130340	Alkalinity (as CaCO3) 320 mg/L	1	SM2320B
	Chloride 23 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS) 11 mg/L	10	SM2540D
	Solids, Total (TS) 420 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 420 mg/L	10	SM2540C
	Sulfate 30 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3130341	Hardness (as CaCO3) 370 mg/L	0.66	SM2340B
	Calcium (Total) 96 mg/L	0.1	EPA 200.7
	Magnesium (Total) 31 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130342	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130343	Nitrogen, Nitrate+Nitrite	1.3 mg/L	0.1	EPA 353.2
3130344	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
3130345	TOC	3.4 mg/L	0.5	SM5310C
AA31610	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.31 mg/L	0.3	SM4500N(Org)-B
AB19234	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	365.4 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0006 **USGS Hydrologic Unit:** 051201030201
Stream Name: Days Creek **County:** Randolph
Description: SR 28 **Latitude:** 40 17 29.43358 **Longitude:** -85 3 59.87262
Drainage: 17.063 **Site Number:** 14T-109

SiteID: WMI-02-0006 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16200
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	77.3 %	ASTM D888-09(C)
	DO	8.08 mg/L	ASTM D888-09(C)
	pH (Field)	7.85 SU	EPA 150.2
	Specific Conductance (Field)	598 umho/cm	SM2510B
	Temperature	13.27 °C	SM2550B(2)
	Turbidity (Hach)	27.8 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3010788	Alkalinity (as CaCO3)	230 mg/L	1 SM2320B
	Chloride	17 mg/L	6 EPA 300.0
	Fluoride	0.1 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	19 mg/L	10 SM2540D
	Solids, Total (TS)	380 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	320 mg/L	10 SM2540C
	Sulfate	32 mg/L	15 EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3010789	Hardness (as CaCO3)	310 mg/L	0.66 SM2340B
	Calcium (Total)	80 mg/L	0.1 EPA 200.7
	Magnesium (Total)	27 mg/L	0.1 EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3010790	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3010791	Nitrogen, Nitrate+Nitrite	7.3 mg/L	0.5 EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3010792	Phosphorus, Total	0.17 mg/L	0.05 SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3010793	TOC	3.5 mg/L	0.5	SM5310C
AA14502	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.91 mg/L	0.3	SM4500N(Org)-B
AB16200	Coliforms (Total)	1299.7 MPN/100mL	1	SM9223B
	E. coli	517.2 MPN/100mL	1	SM9223B

SiteID: WMI-02-0006 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16444
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	90 %		ASTM D888-09(C)
	DO	9.35 mg/L		ASTM D888-09(C)
	pH (Field)	7.99 SU		EPA 150.2
	Specific Conductance (Field)	602 umho/cm		SM2510B
	Temperature	13.59 °C		SM2550B(2)
	Turbidity (Hach)	16.2 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16444	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	178.9 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0006 Sample Date: 04/28/2014 IDEM Sample #: AB16516
 Water Flow Type: Glide Water Appearance: Brown Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	81.4 %		ASTM D888-09(C)
DO	8.79 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	586 umho/cm		SM2510B
Temperature	11.75 °C		SM2550B(2)
Turbidity (Hach)	64.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	24196 MPN/100mL	10	SM9223B
E. coli	1607 MPN/100mL	10	SM9223B

SiteID: WMI-02-0006 Sample Date: 05/05/2014 IDEM Sample #: AB16835
 Water Flow Type: Pool Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	87.4 %		ASTM D888-09(C)
DO	9.42 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	598 umho/cm		SM2510B
Temperature	11.81 °C		SM2550B(2)
Turbidity (Hach)	34.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	95.9 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0006 Sample Date: 05/12/2014 IDEM Sample #: AB16968
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	74.4 %	ASTM D888-09(C)
	DO	7.11 mg/L	ASTM D888-09(C)
	pH (Field)	7.39 SU	EPA 150.2
	Specific Conductance (Field)	396 umho/cm	SM2510B
	Temperature	17.52 °C	SM2550B(2)
	Turbidity (Hach)	292 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID # 3026821	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	110 mg/L	1	SM2320B
	Chloride	19 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	90 mg/L	10	SM2540D
	Solids, Total (TS)	450 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
	Sulfate	20 mg/L	5	EPA 300.0

Lab ID # 3026822	Result	Reporting Limit	Method	
	Hardness (as CaCO3)	190 mg/L	0.66	SM2340B
	Calcium (Total)	47 mg/L	0.1	EPA 200.7
	Magnesium (Total)	17 mg/L	0.1	EPA 200.7

Lab ID # 3026823	Result	Reporting Limit	Method	
	Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

Lab ID # 3026824	Result	Reporting Limit	Method	
	Nitrogen, Nitrate+Nitrite	5 mg/L	0.1	EPA 353.2

Lab ID # 3026825	Result	Reporting Limit	Method	
	Phosphorus, Total	0.73 mg/L	0.05	SM4500P-E

Lab ID # 3026826	Result	Reporting Limit	Method	
	TOC	12 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17810			
COD	49 mg/L	10	EPA 410.4
TKN	3.8 mg/L	0.3	SM4500N(Org)-B
AB16968a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	4352 MPN/100mL	10	SM9223B

SiteID: WMI-02-0006 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17375
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	76.2 %		ASTM D888-09(C)
DO	7.24 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	430 umho/cm		SM2510B
Temperature	17.67 °C		SM2550B(2)
Turbidity (Hach)	167 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042420			
Alkalinity (as CaCO3)	130 mg/L	1	SM2320B
Chloride	11 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	79 mg/L	10	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	15 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042421			
Hardness (as CaCO3)	210 mg/L	0.66	SM2340B
Calcium (Total)	56 mg/L	0.1	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042422			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042423			
Nitrogen, Nitrate+Nitrite	13 mg/L	1	EPA 353.2

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3042424	Phosphorus, Total	0.38 mg/L	0.05	SM4500P-E
3042425	TOC	6.6 mg/L	0.5	SM5310C
AA20583	COD	14 mg/L	10	EPA 410.4
	TKN	0.86 mg/L	0.3	SM4500N(Org)-B
AB17375	E. coli	1413.6 MPN/100mL	1	SM9223B
AB17375a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0006 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17549
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	127.9 %		ASTM D888-09(C)
	DO	11.6 mg/L		ASTM D888-09(C)
	pH (Field)	8.03 SU		EPA 150.2
	Specific Conductance (Field)	646 umho/cm		SM2510B
	Temperature	20.09 °C		SM2550B(2)
	Turbidity (Hach)	8.79 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060582	Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
	Chloride	19 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	390 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
	Sulfate	39 mg/L	5	EPA 300.0

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060583	Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
	Calcium (Total)	85 mg/L	0.1	EPA 200.7
	Magnesium (Total)	30 mg/L	0.1	EPA 200.7
3060584	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060585	Nitrogen, Nitrate+Nitrite	2 mg/L	0.1	EPA 353.2
3060586	Phosphorus, Total	0.07 mg/L	0.05	SM4500P-E
3060587	TOC	3 mg/L	0.5	SM5310C
AA22928	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB17549	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	172.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0006 **Sample Date:** 08/05/2014 **IDEM Sample #:** AB18392
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	51.5 %		SM4500-OG
	DO	5.04 mg/L		SM4500-OG
	pH (Field)	7.68 SU		EPA 150.2
	Specific Conductance (Field)	592 umho/cm		SM2510B
	Temperature	20.87 °C		SM2550B(2)
	Turbidity (Hach)	12.2 NTU		EPA 180.1
	Air Temp	5 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

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SiteID: WMI-02-0006 Sample Date: 08/18/2014 IDEM Sample #: AB18739
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	64 %		ASTM D888-09(C)
DO	5.88 mg/L		ASTM D888-09(C)
pH (Field)	7.57 SU		EPA 150.2
Specific Conductance (Field)	654 umho/cm		SM2510B
Temperature	19.57 °C		SM2550B(2)
Turbidity (Hach)	7.28 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3087417	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
Chloride	20 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	40 mg/L	25	EPA 300.0

Lab ID # 3087418	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	29 mg/L	0.1	EPA 200.7

Lab ID # 3087419	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087420	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.2

Lab ID # 3087421	Result	Reporting Limit	Method
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E

Lab ID # 3087422	Result	Reporting Limit	Method
TOC	4.1 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25790			
COD	13 mg/L	10	EPA 410.4
TKN	7.7 mg/L	0.3	SM4500N(Org)-B
AB18739			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	106.7 MPN/100mL	1	SM9223B

SiteID: WMI-02-0006 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19052
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	90 %		ASTM D888-09(C)
DO	9.33 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	676 umho/cm		SM2510B
Temperature	13.88 °C		SM2550B(2)
Turbidity (Hach)	9.56 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105422			
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	17 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
Sulfate	35 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105423			
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	89 mg/L	0.1	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105424			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105425			
Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105426	Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E
3105427	TOC	4.6 mg/L	0.5	SM5310C
AA28036	COD	13 mg/L	10	EPA 410.4
	TKN	0.6 mg/L	0.3	SM4500N(Org)-B
AB19052	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	365.4 MPN/100mL	1	SM9223B

SiteID: WMI-02-0006 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19235
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	127 %	ASTM D888-09(C)
	DO	13.5 mg/L	ASTM D888-09(C)
	pH (Field)	8.02 SU	EPA 150.2
	Specific Conductance (Field)	662 umho/cm	SM2510B
	Temperature	12.37 °C	SM2550B(2)
	Turbidity (Hach)	6.84 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	4 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130348	Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
	Chloride	25 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	12 mg/L	10	SM2540D
	Solids, Total (TS)	420 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
	Sulfate	37 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130349	Hardness (as CaCO3)	350 mg/L	0.66	SM2340B
	Calcium (Total)	87 mg/L	0.1	EPA 200.7
	Magnesium (Total)	31 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130350	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130351	Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.2
3130352	Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
3130353	TOC	4 mg/L	0.5	SM5310C
AA31611	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.33 mg/L	0.3	SM4500N(Org)-B
AB19235	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	53.8 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0007 **USGS Hydrologic Unit:** 051201030203
Stream Name: Mississinewa River **County:** Randolph
Description: CR 600 W **Latitude:** 40 17 6.76540 **Longitude:** -85 5 33.82484
Drainage: 179.063 **Site Number:** 14T-110

SiteID: WMI-02-0007 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16201
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: FLOW - 217.71 cfs

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	86.7 %		ASTM D888-09(C)
DO	9.06 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	616 umho/cm		SM2510B
Temperature	13.28 °C		SM2550B(2)
Turbidity (Hach)	31.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	217.71 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010796			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	38 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	29 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	34 mg/L	15	EPA 300.0

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010797			
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	78 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010798			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010799			
Nitrogen, Nitrate+Nitrite	6.9 mg/L	0.1	EPA 353.2

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010800			
Phosphorus, Total	0.23 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010801	TOC	3.8 mg/L	0.5	SM5310C
AA14503	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.64 mg/L	0.3	SM4500N(Org)-B
AB16201	Coliforms (Total)	648.8 MPN/100mL	1	SM9223B
	E. coli	160.7 MPN/100mL	1	SM9223B

SiteID: WMI-02-0007 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16445
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	106.8 %		ASTM D888-09(C)
	DO	10.83 mg/L		ASTM D888-09(C)
	pH (Field)	8.32 SU		EPA 150.2
	Specific Conductance (Field)	652 umho/cm		SM2510B
	Temperature	14.47 °C		SM2550B(2)
	Turbidity (Hach)	16.1 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16445	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	115.3 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0007 Sample Date: 04/28/2014 IDEM Sample #: AB16517
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	97.2 %		ASTM D888-09(C)
DO	10.19 mg/L		ASTM D888-09(C)
pH (Field)	8.16 SU		EPA 150.2
Specific Conductance (Field)	629 umho/cm		SM2510B
Temperature	13.15 °C		SM2550B(2)
Turbidity (Hach)	26.7 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	325.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0007 Sample Date: 05/05/2014 IDEM Sample #: AB16836
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	113.4 %		ASTM D888-09(C)
DO	11.98 mg/L		ASTM D888-09(C)
pH (Field)	8.27 SU		EPA 150.2
Specific Conductance (Field)	638 umho/cm		SM2510B
Temperature	12.82 °C		SM2550B(2)
Turbidity (Hach)	14.3 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	117.8 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0007 Sample Date: 05/12/2014 IDEM Sample #: AB16969
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	78.2 %		ASTM D888-09(C)
DO	7.09 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	630 umho/cm		SM2510B
Temperature	20 °C		SM2550B(2)
Turbidity (Hach)	39.8 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	225 cf/sec		FM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3026871	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	24 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	49 mg/L	10	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	47 mg/L	25	EPA 300.0

Lab ID # 3026874	Result	Reporting Limit	Method
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	70 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3026875	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3026878	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	5.8 mg/L	1	EPA 353.2

Lab ID # 3026881	Result	Reporting Limit	Method
Phosphorus, Total	0.21 mg/L	0.05	SM4500P-E

Lab ID # 3026884	Result	Reporting Limit	Method
TOC	4 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17812			
COD	8 mg/L	10	EPA 410.4
TKN	1.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16969			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1413.6 MPN/100mL	1	SM9223B

SiteID: WMI-02-0007 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17363
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	81.4 %		ASTM D888-09(C)
DO	7.69 mg/L		ASTM D888-09(C)
pH (Field)	7.57 SU		EPA 150.2
Specific Conductance (Field)	269 umho/cm		SM2510B
Temperature	17.91 °C		SM2550B(2)
Turbidity (Hach)	222 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	444.79 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042428			
Alkalinity (as CaCO3)	140 mg/L	1	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	110 mg/L	10	SM2540D
Solids, Total (TS)	500 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042429			
Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
Calcium (Total)	60 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042430			
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042431	Nitrogen, Nitrate+Nitrite	16 mg/L	1	EPA 353.2
3042432	Phosphorus, Total	0.42 mg/L	0.05	SM4500P-E
3042433	TOC	7.1 mg/L	0.5	SM5310C
AA20584	COD	21 mg/L	10	EPA 410.4
	TKN	1.5 mg/L	0.3	SM4500N(Org)-B
AB17363a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
	E. coli	4106 MPN/100mL	10	SM9223B

SiteID: WMI-02-0007 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17537
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	96.7 %		ASTM D888-09(C)
	DO	8.76 mg/L		ASTM D888-09(C)
	pH (Field)	8.14 SU		EPA 150.2
	Specific Conductance (Field)	703 umho/cm		SM2510B
	Temperature	20.13 °C		SM2550B(2)
	Turbidity (Hach)	19.6 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Flow	44.47 cf/sec		FM D5389-95/D3858
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
3060590	Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
	Chloride	25 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	12 mg/L	10	SM2540D
	Solids, Total (TS)	440 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
	Sulfate	46 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060591	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	360 mg/L 88 mg/L 34 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060592	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060593	Nitrogen, Nitrate+Nitrite	3.1 mg/L	0.1	EPA 353.2
3060594	Phosphorus, Total	0.15 mg/L	0.05	SM4500P-E
3060595	TOC	3.1 mg/L	0.5	SM5310C
AA22929	COD TKN	< 10 mg/L 0.34 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17537	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 166.4 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-02-0007 **Sample Date:** 08/06/2014 **IDEM Sample #:** AB18391
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q6 Turb = 23.5

Lab ID #	Result	Reporting Limit	Method
	% Sat	67.3 %	SM4500-OG
	DO	4.73 mg/L	SM4500-OG
	pH (Field)	7.87 SU	EPA 150.2
	Specific Conductance (Field)	688 umho/cm	SM2510B
	Temperature	22.06 °C	SM2550B(2)
	Turbidity	23.5 NTU	SM2130B Mod
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation

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SiteID: WMI-02-0007 Sample Date: 08/18/2014 IDEM Sample #: AB18727
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	65 %		ASTM D888-09(C)
DO	5.71 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	763 umho/cm		SM2510B
Temperature	21.65 °C		SM2550B(2)
Turbidity (Hach)	15.5 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	14.837 cf/sec		FM D5089-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087425	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
Chloride	29 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	12 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	55 mg/L	25	EPA 300.0

Lab ID # 3087426	Result	Reporting Limit	Method
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	79 mg/L	0.1	EPA 200.7
Magnesium (Total)	35 mg/L	0.1	EPA 200.7

Lab ID # 3087427	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087428	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2

Lab ID # 3087429	Result	Reporting Limit	Method
Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E

Lab ID # 3087430	Result	Reporting Limit	Method
TOC	3.5 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25791			
COD	12 mg/L	10	EPA 410.4
TKN	0.38 mg/L	0.3	SM4500N(Org)-B
AB18727			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	162.4 MPN/100mL	1	SM9223B

SiteID: WMI-02-0007 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19040
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	80.4 %		ASTM D888-09(C)
DO	8.09 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	711 umho/cm		SM2510B
Temperature	14.99 °C		SM2550B(2)
Turbidity (Hach)	13.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	8.8624 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105430			
Alkalinity (as CaCO3)	260 mg/L	1	SM2320B
Chloride	33 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	45 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105431			
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	79 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105432			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #	Result	Reporting Limit	Method
3105433	Nitrogen, Nitrate+Nitrite 1.9 mg/L	0.1	EPA 353.2
3105434	Phosphorus, Total 0.19 mg/L	0.05	SM4500P-E
3105435	TOC 5 mg/L	0.5	SM5310C
AA28037	COD 12 mg/L	10	EPA 410.4
	TKN 0.48 mg/L	0.3	SM4500N(Org)-B
AB19040	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 325.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0007 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19223
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 56 %		ASTM D888-09(C)
	DO 6 mg/L		ASTM D888-09(C)
	pH (Field) 7.61 SU		EPA 150.2
	Specific Conductance (Field) 789 umho/cm		SM2510B
	Temperature 12.11 °C		SM2550B(2)
	Turbidity (Hach) 5.15 NTU		EPA 180.1
	Air Temp 5 Lookup		Observation
	Flow 6.4208 cf/sec		FM D5389-95/D3858
	Sky Conditions 3 Lookup		Observation
	Wind Direction 27 Lookup		Observation
	Wind Strength 3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130362	Alkalinity (as CaCO3) 320 mg/L	1	SM2320B
	Chloride 38 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 460 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 440 mg/L	10	SM2540C
	Sulfate 57 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3130363	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	350 mg/L 83 mg/L 34 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3130364	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130365	Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.2
3130366	Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
3130367	TOC	4.9 mg/L	0.5	SM5310C
AA31613	COD TKN	6 mg/L 0.4 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB19223	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 152.9 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-02-0007 **Sample Date:** 12/15/2014 **IDEM Sample #:** AB19848
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	91.2 %	ASTM D888-09(C)
	DO	11.62 mg/L	ASTM D888-09(C)
	pH (Field)	8.01 SU	EPA 150.2
	Specific Conductance (Field)	777 umho/cm	SM2510B
	Temperature	4.8 °C	SM2550B(2)
	Turbidity (Hach)	5.75 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Flow	48.988 cf/sec	TM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method
3156143			
Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
Chloride	32 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	470 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	48 mg/L	25	EPA 300.0
3156144			
Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
Calcium (Total)	98 mg/L	0.1	EPA 200.7
Magnesium (Total)	37 mg/L	0.1	EPA 200.7
3156145			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3156146			
Nitrogen, Nitrate+Nitrite	4 mg/L	0.1	EPA 353.2
3156147			
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3156148			
TOC	2.4 mg/L	0.5	SM5310C
50109606003			
COD	10.9 mg/L	10	EPA 410.4
TKN	< 0.5 mg/L	0.5	EPA 351.2

**Indiana Department of Environmental Management
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SiteID: WMI-02-0007 Sample Date: 03/16/2015 IDEM Sample #: AB20792
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Flooded condition; stream outside of banks

Lab ID #	Result	Reporting Limit	Method
% Sat	92.5 %		ASTM D888-09(C)
DO	11.06 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	504 umho/cm		SM2510B
Temperature	7.48 °C		SM2550B(2)
Turbidity (Hach)	44.6 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	464.16 cf/sec		FM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3208920	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
Chloride	20 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	45 mg/L	10	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 mg/L	10	SM2540C
Sulfate	28 mg/L	15	EPA 300.0

Lab ID # 3208921	Result	Reporting Limit	Method
Hardness (as CaCO3)	250 mg/L	0.66	SM2340B
Calcium (Total)	63 mg/L	0.1	EPA 200.7
Magnesium (Total)	23 mg/L	0.1	EPA 200.7

Lab ID # 3208922	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3208923	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	6.4 mg/L	0.1	EPA 353.2

Lab ID # 3208924	Result	Reporting Limit	Method
Phosphorus, Total	0.32 mg/L	0.05	SM4500P-E

Lab ID # 3208925	Result	Reporting Limit	Method
TOC	5.6 mg/L	0.5	SM5310C

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Lab ID # 50114905002

Result

Reporting Limit

Method

	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.85 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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SiteID: WMI-02-0009 **USGS Hydrologic Unit:** 051201030204
Stream Name: Bush Creek **County:** Randolph
Description: CR 750 N **Latitude:** 40 16 17.70312 **Longitude:** -85 8 42.17699
Drainage: 19.939 **Site Number:** 14T-112

SiteID: WMI-02-0009 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16168
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: FLOW - 15.5193 cfs

Lab ID #	Result	Reporting Limit	Method
% Sat	105.1 %		ASTM D888-09(C)
DO	10.97 mg/L		ASTM D888-09(C)
pH (Field)	8.13 SU		EPA 150.2
Specific Conductance (Field)	597 umho/cm		SM2510B
Temperature	13.36 °C		SM2550B(2)
Turbidity (Hach)	18.3 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	15.5193 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010804	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	22 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	10 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	38 mg/L	15	EPA 300.0

Lab ID # 3010805	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3010806	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010807	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	3.1 mg/L	0.1	EPA 353.2

Lab ID # 3010808	Result	Reporting Limit	Method
Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010809	TOC	4.3 mg/L	0.5	SM5310C
AA14504	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.66 mg/L	0.3	SM4500N(Org)-B
AB16168	Coliforms (Total)	1299.7 MPN/100mL	1	SM9223B
	E. coli	325.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0009 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16412
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	184.7 %		ASTM D888-09(C)
	DO	19.58 mg/L		ASTM D888-09(C)
	pH (Field)	8.65 SU		EPA 150.2
	Specific Conductance (Field)	616 umho/cm		SM2510B
	Temperature	15.09 °C		SM2550B(2)
	Turbidity (Hach)	7.29 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16412	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	59.1 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0009 Sample Date: 04/28/2014 IDEM Sample #: AB16484
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	106.5 %		ASTM D888-09(C)
DO	11.51 mg/L		ASTM D888-09(C)
pH (Field)	8.16 SU		EPA 150.2
Specific Conductance (Field)	630 umho/cm		SM2510B
Temperature	11.84 °C		SM2550B(2)
Turbidity (Hach)	20.6 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1119.9 MPN/100mL	1	SM9223B

SiteID: WMI-02-0009 Sample Date: 05/05/2014 IDEM Sample #: AB16803
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	155.4 %		ASTM D888-09(C)
DO	16.46 mg/L		ASTM D888-09(C)
pH (Field)	8.27 SU		EPA 150.2
Specific Conductance (Field)	652 umho/cm		SM2510B
Temperature	12.78 °C		SM2550B(2)
Turbidity (Hach)	4.43 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
E. coli	108.1 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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SiteID: WMI-02-0009 Sample Date: 05/12/2014 IDEM Sample #: AB16936
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	118.8 %		ASTM D888-09(C)
DO	10.6 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	634 umho/cm		SM2510B
Temperature	20.89 °C		SM2550B(2)
Turbidity (Hach)	28.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	8.5895 cf/sec		TM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3026967	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	28 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	17 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	42 mg/L	25	EPA 300.0

Lab ID # 3026968	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	32 mg/L	0.1	EPA 200.7

Lab ID # 3026969	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

Lab ID # 3026970	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	6.5 mg/L	0.1	EPA 353.2

Lab ID # 3026971	Result	Reporting Limit	Method
Phosphorus, Total	0.34 mg/L	0.05	SM4500P-E

Lab ID # 3026972	Result	Reporting Limit	Method
TOC	6.4 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17813			
COD	23 mg/L	10	EPA 410.4
TKN	1.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16936			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	727 MPN/100mL	1	SM9223B

SiteID: WMI-02-0009 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17364
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.2 %		ASTM D888-09(C)
DO	8.49 mg/L		ASTM D888-09(C)
pH (Field)	7.55 SU		EPA 150.2
Specific Conductance (Field)	492 umho/cm		SM2510B
Temperature	17.56 °C		SM2550B(2)
Turbidity (Hach)	91.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	26.7082 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042436			
Alkalinity (as CaCO3)	160 mg/L	1	SM2320B
Chloride	16 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	43 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042437			
Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
Calcium (Total)	58 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042438			
Nitrogen, Ammonia	0.4 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042439	Nitrogen, Nitrate+Nitrite	11 mg/L	1	EPA 353.2
3042440	Phosphorus, Total	0.32 mg/L	0.05	SM4500P-E
3042441	TOC	7.3 mg/L	0.5	SM5310C
AA20585	COD	16 mg/L	10	EPA 410.4
	TKN	1.6 mg/L	0.3	SM4500N(Org)-B
AB17364	E. coli	1553.1 MPN/100mL	1	SM9223B
AB17364a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0009 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17538
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	98.3 %		ASTM D888-09(C)
DO	8.92 mg/L		ASTM D888-09(C)
pH (Field)	8.15 SU		EPA 150.2
Specific Conductance (Field)	743 umho/cm		SM2510B
Temperature	20.02 °C		SM2550B(2)
Turbidity (Hach)	4.63 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	1.5767 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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Lab ID #	Result	Reporting Limit	Method
3060598			
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	23 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
Sulfate	64 mg/L	5	EPA 300.0
3060599			
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	82 mg/L	0.1	EPA 200.7
Magnesium (Total)	41 mg/L	0.1	EPA 200.7
3060600			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060601			
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.2
3060602			
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
3060603			
TOC	3.2 mg/L	0.5	SM5310C
AA22930			
COD	< 10 mg/L	10	EPA 410.4
TKN	0.33 mg/L	0.3	SM4500N(Org)-B
AB17538			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	184.2 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0009 Sample Date: 08/05/2014 IDEM Sample #: AB18390
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Q6 TURB = 38.7

Lab ID #	Result	Reporting Limit	Method
% Sat	65.3 %		SM4500-OG
DO	5.3 mg/L		SM4500-OG
pH (Field)	8.15 SU		EPA 150.2
Specific Conductance (Field)	704 umho/cm		SM2510B
Temperature	21.24 °C		SM2550B(2)
Turbidity (Hach)	23.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WMI-02-0009 Sample Date: 08/18/2014 IDEM Sample #: AB18728
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	81.3 %		ASTM D888-09(C)
DO	7.44 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	790 umho/cm		SM2510B
Temperature	19.53 °C		SM2550B(2)
Turbidity (Hach)	3.47 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	0.1921 cf/sec		TM D5089-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087433	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	21 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	77 mg/L	25	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3087436	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	370 mg/L 75 mg/L 44 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3087437	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3087440	Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
3087443	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3087446	TOC	3.8 mg/L	0.5	SM5310C
AA25792	COD TKN	8 mg/L < 0.3 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB18728	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 436 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-02-0009 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19041
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	89.2 %	ASTM D888-09(C)
	DO	9.2 mg/L	ASTM D888-09(C)
	pH (Field)	7.92 SU	EPA 150.2
	Specific Conductance (Field)	728 umho/cm	SM2510B
	Temperature	13.85 °C	SM2550B(2)
	Turbidity (Hach)	8.65 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Flow	0.0033 cf/sec	TM D5389-95/D3858
	Sky Conditions	7 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method
3105438			
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	26 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	55 mg/L	25	EPA 300.0
3105439			
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	81 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7
3105440			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3105441			
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2
3105442			
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
3105443			
TOC	6.1 mg/L	0.5	SM5310C
AA28038			
COD	14 mg/L	10	EPA 410.4
TKN	0.5 mg/L	0.3	SM4500N(Org)-B
AB19041			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	365.4 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0009 Sample Date: 10/27/2014 IDEM Sample #: AB19224
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	75.4 %		ASTM D888-09(C)
DO	8.25 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	839 umho/cm		SM2510B
Temperature	11.15 °C		SM2550B(2)
Turbidity (Hach)	2.99 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	1.21 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 3130378	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	340 mg/L	1	SM2320B
Chloride	34 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	500 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	470 mg/L	10	SM2540C
Sulfate	67 mg/L	25	EPA 300.0

Lab ID # 3130381	Result	Reporting Limit	Method
Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
Calcium (Total)	89 mg/L	0.1	EPA 200.7
Magnesium (Total)	42 mg/L	0.1	EPA 200.7

Lab ID # 3130382	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3130385	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

Lab ID # 3130388	Result	Reporting Limit	Method
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E

Lab ID # 3130391	Result	Reporting Limit	Method
TOC	4.6 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA31615			
COD	6 mg/L	10	EPA 410.4
TKN	0.5 mg/L	0.3	SM4500N(Org)-B
AB19224			
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	93.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0009 **Sample Date:** 12/15/2014 **IDEM Sample #:** AB19847
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	92 %		ASTM D888-09(C)
DO	11.86 mg/L		ASTM D888-09(C)
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	788 umho/cm		SM2510B
Temperature	4.55 °C		SM2550B(2)
Turbidity (Hach)	5.08 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	5.8024 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3156135			
Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
Chloride	30 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
Sulfate	59 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3156136			
Hardness (as CaCO3)	400 mg/L	0.66	SM2340B
Calcium (Total)	96 mg/L	0.1	EPA 200.7
Magnesium (Total)	40 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3156137			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #	Result	Reporting Limit	Method	
3156138	Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	EPA 353.2
3156139	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3156140	TOC	3.1 mg/L	0.5	SM5310C
50109606002	COD	13.3 mg/L	10	EPA 410.4
	TKN	< 0.5 mg/L	0.5	EPA 351.2

SiteID: WMI-02-0009 **Sample Date:** 01/20/2015 **IDEM Sample #:** AB20318
Water Flow Type Other **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Mostly Frozen

Lab ID #	Result	Reporting Limit	Method
	% Sat	88.3 %	ASTM D888-09(C)
	DO	12.76 mg/L	ASTM D888-09(C)
	pH (Field)	7.52 SU	EPA 150.2
	Specific Conductance (Field)	470 umho/cm	SM2510B
	Temperature	0.35 °C	SM2550B(2)
	Turbidity (Hach)	34.3 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3173760	Alkalinity (as CaCO3)	170 mg/L	1	SM2320B
	Chloride	21 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
	Solids, Total (TS)	280 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	250 mg/L	10	SM2540C
	Sulfate	25 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3173761	Hardness (as CaCO3)	220 mg/L	0.66	SM2340B
	Calcium (Total)	52 mg/L	0.1	EPA 200.7
	Magnesium (Total)	22 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3173762	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3173763	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	EPA 353.2
3173764	Phosphorus, Total	0.27 mg/L	0.05	SM4500P-E
3173765	TOC	5.5 mg/L	0.5	SM5310C
50111361002	COD	16.6 mg/L	10	EPA 410.4
	TKN	0.52 mg/L	0.5	EPA 351.2

SiteID: WMI-02-0009 **Sample Date:** 03/16/2015 **IDEM Sample #:** AB20791
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	95.5 %	ASTM D888-09(C)
	DO	11.6 mg/L	ASTM D888-09(C)
	pH (Field)	7.57 SU	EPA 150.2
	Specific Conductance (Field)	516 umho/cm	SM2510B
	Temperature	6.72 °C	SM2550B(2)
	Turbidity (Hach)	16.6 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Flow	18.101 cf/sec	FM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3208928	Alkalinity (as CaCO3)	190 mg/L	1	SM2320B
	Chloride	22 mg/L	6	EPA 300.0
	Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
	Solids, Total (TS)	320 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
	Sulfate	28 mg/L	15	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3208929	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	250 mg/L 61 mg/L 24 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3208930	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3208931	Nitrogen, Nitrate+Nitrite	3.9 mg/L	0.1	EPA 353.2
3208932	Phosphorus, Total	0.22 mg/L	0.05	SM4500P-E
3208933	TOC	4.9 mg/L	0.5	SM5310C
50114905003	COD TKN	< 10 mg/L 0.6 mg/L	10 0.5	EPA 410.4 EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0015 **USGS Hydrologic Unit:** 051201030206
Stream Name: Dinner Creek **County:** Randolph
Description: SR 28 **Latitude:** 40 17 36.19877 **Longitude:** -85 8 36.39743
Drainage: 5.957 **Site Number:** 14T-113

SiteID: WMI-02-0015 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16169
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.1 %		ASTM D888-09(C)
DO	9.41 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	630 umho/cm		SM2510B
Temperature	12.81 °C		SM2550B(2)
Turbidity (Hach)	25.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010812	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	19 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	23 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	33 mg/L	15	EPA 300.0

Lab ID # 3010813	Result	Reporting Limit	Method
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	81 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3010814	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010815	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	6.6 mg/L	0.1	EPA 353.2

Lab ID # 3010816	Result	Reporting Limit	Method
Phosphorus, Total	0.19 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010817	TOC	3.3 mg/L	0.5	SM5310C
AA14505	COD	6.2 mg/L	10	EPA 410.4
	TKN	0.49 mg/L	0.3	SM4500N(Org)-B
AB16169	Coliforms (Total)	1046.2 MPN/100mL	1	SM9223B
	E. coli	156.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0015 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16413
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	121.5 %		ASTM D888-09(C)
	DO	12.79 mg/L		ASTM D888-09(C)
	pH (Field)	8.17 SU		EPA 150.2
	Specific Conductance (Field)	642 umho/cm		SM2510B
	Temperature	13.24 °C		SM2550B(2)
	Turbidity (Hach)	6.2 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16413	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	290.9 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0015 Sample Date: 04/28/2014 IDEM Sample #: AB16485
 Water Flow Type Riffle Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.6 %		ASTM D888-09(C)
DO	9.88 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	541 umho/cm		SM2510B
Temperature	10.94 °C		SM2550B(2)
Turbidity (Hach)	72.6 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	2282 MPN/100mL	10	SM9223B

SiteID: WMI-02-0015 Sample Date: 05/05/2014 IDEM Sample #: AB16804
 Water Flow Type Riffle Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	111.1 %		ASTM D888-09(C)
DO	12.26 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	663 umho/cm		SM2510B
Temperature	10.95 °C		SM2550B(2)
Turbidity (Hach)	4.53 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	686.7 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0015 Sample Date: 05/12/2014 IDEM Sample #: AB16937
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	94.6 %	ASTM D888-09(C)
	DO	8.43 mg/L	ASTM D888-09(C)
	pH (Field)	7.93 SU	EPA 150.2
	Specific Conductance (Field)	572 umho/cm	SM2510B
	Temperature	20.97 °C	SM2550B(2)
	Turbidity (Hach)	70.8 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID # 3026975	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	160 mg/L	1	SM2320B
	Chloride	27 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	26 mg/L	10	SM2540D
	Solids, Total (TS)	390 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
	Sulfate	32 mg/L	25	EPA 300.0

Lab ID # 3026976	Result	Reporting Limit	Method	
	Hardness (as CaCO3)	260 mg/L	0.66	SM2340B
	Calcium (Total)	65 mg/L	0.1	EPA 200.7
	Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID # 3026977	Result	Reporting Limit	Method	
	Nitrogen, Ammonia	1 mg/L	0.1	SM4500NH3-D

Lab ID # 3026978	Result	Reporting Limit	Method	
	Nitrogen, Nitrate+Nitrite	9.2 mg/L	0.1	EPA 353.2

Lab ID # 3026979	Result	Reporting Limit	Method	
	Phosphorus, Total	0.24 mg/L	0.05	SM4500P-E

Lab ID # 3026980	Result	Reporting Limit	Method	
	TOC	8.2 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method	
AA17814				
	COD	21 mg/L	10	EPA 410.4
	TKN	2.9 mg/L	0.3	SM4500N(Org)-B
AB16937				
	E. coli	2419.6 MPN/100mL	1	SM9223B
AB16937a				
	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0015 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17365
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	91 %	ASTM D888-09(C)
	DO	8.7 mg/L	ASTM D888-09(C)
	pH (Field)	7.54 SU	EPA 150.2
	Specific Conductance (Field)	533 umho/cm	SM2510B
	Temperature	17.61 °C	SM2550B(2)
	Turbidity (Hach)	56.7 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3042444				
	Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
	Chloride	16 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	30 mg/L	10	SM2540D
	Solids, Total (TS)	390 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	21 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3042445				
	Hardness (as CaCO3)	270 mg/L	0.66	SM2340B
	Calcium (Total)	69 mg/L	0.1	EPA 200.7
	Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method	
3042446				
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042447	Nitrogen, Nitrate+Nitrite	14 mg/L	1	EPA 353.2
3042448	Phosphorus, Total	0.38 mg/L	0.05	SM4500P-E
3042449	TOC	6.1 mg/L	0.5	SM5310C
AA20586	COD	19 mg/L	10	EPA 410.4
	TKN	0.93 mg/L	0.3	SM4500N(Org)-B
AB17365	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WMI-02-0015 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17539
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	75.6 %		ASTM D888-09(C)
	DO	7.04 mg/L		ASTM D888-09(C)
	pH (Field)	7.71 SU		EPA 150.2
	Specific Conductance (Field)	710 umho/cm		SM2510B
	Temperature	18.74 °C		SM2550B(2)
	Turbidity (Hach)	9.97 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3060606	Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
	Chloride	27 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	440 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
	Sulfate	47 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060607	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	360 mg/L 89 mg/L 33 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060608	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060609	Nitrogen, Nitrate+Nitrite	3 mg/L	0.1	EPA 353.2
3060610	Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
3060611	TOC	3.1 mg/L	0.5	SM5310C
AA22931	COD TKN	< 10 mg/L 0.44 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17539	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 261.3 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-02-0015 **Sample Date:** 08/05/2014 **IDEM Sample #:** AB18368
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	59.2 %	SM4500-OG
	DO	5.39 mg/L	SM4500-OG
	pH (Field)	7.55 SU	EPA 150.2
	Specific Conductance (Field)	729 umho/cm	SM2510B
	Temperature	19.16 °C	SM2550B(2)
	Turbidity (Hach)	8 NTU	EPA 180.1
	Air Temp	6 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-02-0015 Sample Date: 08/18/2014 IDEM Sample #: AB18729
 Water Flow Type Riffle Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	65.7 %		ASTM D888-09(C)
DO	6.27 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	800 umho/cm		SM2510B
Temperature	18 °C		SM2550B(2)
Turbidity (Hach)	4.21 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3087455	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	39 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	60 mg/L	25	EPA 300.0

Lab ID # 3087456	Result	Reporting Limit	Method
Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
Calcium (Total)	88 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7

Lab ID # 3087457	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087458	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.2

Lab ID # 3087459	Result	Reporting Limit	Method
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E

Lab ID # 3087460	Result	Reporting Limit	Method
TOC	2.3 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25793			
COD	13 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB18729			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	261.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0015 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19042
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	78.2 %		ASTM D888-09(C)
DO	8.25 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	726 umho/cm		SM2510B
Temperature	12.96 °C		SM2550B(2)
Turbidity (Hach)	8.03 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105452			
Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
Chloride	24 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	45 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105453			
Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
Calcium (Total)	91 mg/L	0.1	EPA 200.7
Magnesium (Total)	31 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105454			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105455			
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105456	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3105457	TOC	4 mg/L	0.5	SM5310C
AA28040	COD	10 mg/L	10	EPA 410.4
	TKN	0.41 mg/L	0.3	SM4500N(Org)-B
AB19042	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	261.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0015 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19225
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	63.1 %	ASTM D888-09(C)
	DO	6.83 mg/L	ASTM D888-09(C)
	pH (Field)	7.28 SU	EPA 150.2
	Specific Conductance (Field)	779 umho/cm	SM2510B
	Temperature	11.94 °C	SM2550B(2)
	Turbidity (Hach)	2.95 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130400	Alkalinity (as CaCO3)	330 mg/L	1	SM2320B
	Chloride	32 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	450 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	500 mg/L	10	SM2540C
	Sulfate	44 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130401	Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
	Calcium (Total)	95 mg/L	0.1	EPA 200.7
	Magnesium (Total)	36 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130402	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130403	Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2
3130404	Phosphorus, Total	0.06 mg/L	0.05	SM4500P-E
3130405	TOC	4.5 mg/L	0.5	SM5310C
AA31616	COD	8 mg/L	10	EPA 410.4
	TKN	0.4 mg/L	0.3	SM4500N(Org)-B
AB19225	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	14.6 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-02-0016 **USGS Hydrologic Unit:** 051201030205
Stream Name: Halfway Creek **County:** Jay
Description: CR 1000 W **Latitude:** 40 20 22.25610 **Longitude:** -85 10 6.34308
Drainage: 4.413 **Site Number:** 14T-114

SiteID: WMI-02-0016 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16170
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	108.9 %		ASTM D888-09(C)
DO	11.72 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	616 umho/cm		SM2510B
Temperature	12.03 °C		SM2550B(2)
Turbidity (Hach)	36.5 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010820	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	28 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	27 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	34 mg/L	15	EPA 300.0

Lab ID # 3010821	Result	Reporting Limit	Method
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	74 mg/L	0.1	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7

Lab ID # 3010822	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010823	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	3.3 mg/L	0.1	EPA 353.2

Lab ID # 3010824	Result	Reporting Limit	Method
Phosphorus, Total	0.34 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010825	TOC	4.3 mg/L	0.5	SM5310C
AA14506				
	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.64 mg/L	0.3	SM4500N(Org)-B
AB16170				
	Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
	E. coli	547.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0016 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16414
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	204.4 %		ASTM D888-09(C)
	DO	20.25 mg/L		ASTM D888-09(C)
	pH (Field)	8.64 SU		EPA 150.2
	Specific Conductance (Field)	674 umho/cm		SM2510B
	Temperature	16.63 °C		SM2550B(2)
	Turbidity (Hach)	10.5 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16414				
	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	35 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0016 Sample Date: 04/28/2014 IDEM Sample #: AB16486
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	113.8 %		ASTM D888-09(C)
DO	12.3 mg/L		ASTM D888-09(C)
pH (Field)	8 SU		EPA 150.2
Specific Conductance (Field)	626 umho/cm		SM2510B
Temperature	11.83 °C		SM2550B(2)
Turbidity (Hach)	36.1 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	4 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-02-0016 Sample Date: 05/05/2014 IDEM Sample #: AB16805
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	158.7 %		ASTM D888-09(C)
DO	16.56 mg/L		ASTM D888-09(C)
pH (Field)	8.22 SU		EPA 150.2
Specific Conductance (Field)	686 umho/cm		SM2510B
Temperature	13.44 °C		SM2550B(2)
Turbidity (Hach)	10.5 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	52.9 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0016 Sample Date: 05/12/2014 IDEM Sample #: AB16938
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	151.7 %	ASTM D888-09(C)
	DO	12.65 mg/L	ASTM D888-09(C)
	pH (Field)	8.29 SU	EPA 150.2
	Specific Conductance (Field)	600 umho/cm	SM2510B
	Temperature	24.39 °C	SM2550B(2)
	Turbidity (Hach)	53 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID # 3026983	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	200 mg/L	1	SM2320B
	Chloride	34 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	49 mg/L	10	SM2540D
	Solids, Total (TS)	400 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
	Sulfate	32 mg/L	25	EPA 300.0

Lab ID # 3026984	Result	Reporting Limit	Method	
	Hardness (as CaCO3)	260 mg/L	0.66	SM2340B
	Calcium (Total)	64 mg/L	0.1	EPA 200.7
	Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID # 3026985	Result	Reporting Limit	Method	
	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3026986	Result	Reporting Limit	Method	
	Nitrogen, Nitrate+Nitrite	5.1 mg/L	0.1	EPA 353.2

Lab ID # 3026987	Result	Reporting Limit	Method	
	Phosphorus, Total	0.49 mg/L	0.05	SM4500P-E

Lab ID # 3026988	Result	Reporting Limit	Method	
	TOC	6.6 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17815			
COD	23 mg/L	10	EPA 410.4
TKN	1.8 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16938a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	5794 MPN/100mL	10	SM9223B

SiteID: WMI-02-0016 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17366
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	82.3 %		ASTM D888-09(C)
DO	7.63 mg/L		ASTM D888-09(C)
pH (Field)	7.4 SU		EPA 150.2
Specific Conductance (Field)	433 umho/cm		SM2510B
Temperature	18.89 °C		SM2550B(2)
Turbidity (Hach)	158 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042452			
Alkalinity (as CaCO3)	150 mg/L	1	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	74 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042453			
Hardness (as CaCO3)	200 mg/L	0.66	SM2340B
Calcium (Total)	54 mg/L	0.1	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042454			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042455			
Nitrogen, Nitrate+Nitrite	6.2 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042456	Phosphorus, Total	0.43 mg/L	0.05	SM4500P-E
3042457	TOC	6.8 mg/L	0.5	SM5310C
AA20587	COD	19 mg/L	10	EPA 410.4
	TKN	0.9 mg/L	0.3	SM4500N(Org)-B
AB17366	E. coli	1986.3 MPN/100mL	1	SM9223B
AB17366a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0016 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17540
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	181.8 %	ASTM D888-09(C)
	DO	15.84 mg/L	ASTM D888-09(C)
	pH (Field)	8.41 SU	EPA 150.2
	Specific Conductance (Field)	852 umho/cm	SM2510B
	Temperature	21.73 °C	SM2550B(2)
	Turbidity (Hach)	12.5 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060614	Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
	Chloride	60 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	510 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	490 mg/L	10	SM2540C
	Sulfate	65 mg/L	25	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060615	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	340 mg/L 86 mg/L 32 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060616	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060617	Nitrogen, Nitrate+Nitrite	5.3 mg/L	0.1	EPA 353.2
3060618	Phosphorus, Total	0.57 mg/L	0.05	SM4500P-E
3060619	TOC	5.3 mg/L	0.5	SM5310C
AA22932	COD TKN	10 mg/L 0.58 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17540	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 214.2 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-02-0016 **Sample Date:** 08/04/2014 **IDEM Sample #:** AB18389
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Excessive macrophytes

Lab ID #	Result	Reporting Limit	Method
	% Sat	157.2 %	SM4500-OG
	DO	12.51 mg/L	SM4500-OG
	pH (Field)	8.53 SU	EPA 150.2
	Specific Conductance (Field)	880 umho/cm	SM2510B
	Temperature	23.74 °C	SM2550B(2)
	Turbidity (Hach)	4.05 NTU	EPA 180.1
	Air Temp	6 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-02-0016 Sample Date: 08/18/2014 IDEM Sample #: AB18730
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Completely choked with algae.

Lab ID #	Result	Reporting Limit	Method
% Sat	133.8 %		ASTM D888-09(C)
DO	11.73 mg/L		ASTM D888-09(C)
pH (Field)	8.25 SU		EPA 150.2
Specific Conductance (Field)	1306 umho/cm		SM2510B
Temperature	21.25 °C		SM2550B(2)
Turbidity (Hach)	3.82 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087463	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	130 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	780 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	730 mg/L	10	SM2540C
Sulfate	130 mg/L	25	EPA 300.0

Lab ID # 3087464	Result	Reporting Limit	Method
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	80 mg/L	0.1	EPA 200.7
Magnesium (Total)	35 mg/L	0.1	EPA 200.7

Lab ID # 3087465	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087466	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	15 mg/L	1	EPA 353.2

Lab ID # 3087467	Result	Reporting Limit	Method
Phosphorus, Total	1.4 mg/L	0.25	SM4500P-E

Lab ID # 3087468	Result	Reporting Limit	Method
TOC	5.9 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25794			
COD	15 mg/L	10	EPA 410.4
TKN	0.62 mg/L	0.3	SM4500N(Org)-B
AB18730			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: WMI-02-0016 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19043
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	87.7 %		ASTM D888-09(C)
DO	8.56 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	772 umho/cm		SM2510B
Temperature	16.47 °C		SM2550B(2)
Turbidity (Hach)	9.61 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105468			
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	33 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	440 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	45 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105469			
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	89 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105470			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105471			
Nitrogen, Nitrate+Nitrite	2 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105472	Phosphorus, Total	0.25 mg/L	0.05	SM4500P-E
3105473	TOC	4.6 mg/L	0.5	SM5310C
AA28042	COD	12 mg/L	10	EPA 410.4
	TKN	0.82 mg/L	0.3	SM4500N(Org)-B
AB19043	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	920.8 MPN/100mL	1	SM9223B

SiteID: WMI-02-0016 **Sample Date:** 10/27/2014 **IDEM Sample #:** AB19226
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	140.2 %	ASTM D888-09(C)
	DO	14.25 mg/L	ASTM D888-09(C)
	pH (Field)	7.76 SU	EPA 150.2
	Specific Conductance (Field)	800 umho/cm	SM2510B
	Temperature	14.4 °C	SM2550B(2)
	Turbidity (Hach)	8.41 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	4 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130408	Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
	Chloride	42 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	490 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
	Sulfate	49 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130409	Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
	Calcium (Total)	91 mg/L	0.1	EPA 200.7
	Magnesium (Total)	33 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130410	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130411	Nitrogen, Nitrate+Nitrite	3.6 mg/L	0.1	EPA 353.2
3130412	Phosphorus, Total	0.31 mg/L	0.05	SM4500P-E
3130413	TOC	4.1 mg/L	0.5	SM5310C
AA31617	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.45 mg/L	0.3	SM4500N(Org)-B
AB19226	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	517.2 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0017 **USGS Hydrologic Unit:** 051201030205
Stream Name: Halfway Creek **County:** Delaware
Description: Water Street **Latitude:** 40 17 52.10025 **Longitude:** -85 14 13.45069
Drainage: 24.875 **Site Number:** 14T-116

SiteID: WMI-02-0017 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16171
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: FLOW - 21.2592 cfs

Lab ID #	Result	Reporting Limit	Method
% Sat	94.1 %		ASTM D888-09(C)
DO	10 mg/L		ASTM D888-09(C)
pH (Field)	8 SU		EPA 150.2
Specific Conductance (Field)	609 umho/cm		SM2510B
Temperature	12.56 °C		SM2550B(2)
Turbidity (Hach)	24.1 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	21.2592 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3010828	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	27 mg/L	6	EPA 300.0
Fluoride	0.1 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	19 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	32 mg/L	15	EPA 300.0

Lab ID # 3010829	Result	Reporting Limit	Method
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7

Lab ID # 3010830	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010831	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.6 mg/L	0.1	EPA 353.2

Lab ID # 3010832	Result	Reporting Limit	Method
Phosphorus, Total	0.23 mg/L	0.05	SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3010833	TOC	4.3 mg/L	0.5	SM5310C
AA14507	COD	7.2 mg/L	10	EPA 410.4
	TKN	0.41 mg/L	0.3	SM4500N(Org)-B
AB16171	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WMI-02-0017 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16415
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	169.7 %		ASTM D888-09(C)
	DO	16.82 mg/L		ASTM D888-09(C)
	pH (Field)	8.57 SU		EPA 150.2
	Specific Conductance (Field)	575 umho/cm		SM2510B
	Temperature	15.49 °C		SM2550B(2)
	Turbidity (Hach)	14.8 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16415	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	547.5 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0017 Sample Date: 04/28/2014 IDEM Sample #: AB16487
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	103.1 %		ASTM D888-09(C)
DO	10.92 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	557 umho/cm		SM2510B
Temperature	12.68 °C		SM2550B(2)
Turbidity (Hach)	30.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1986.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0017 Sample Date: 05/05/2014 IDEM Sample #: AB16806
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	161.3 %		ASTM D888-09(C)
DO	16.53 mg/L		ASTM D888-09(C)
pH (Field)	8.4 SU		EPA 150.2
Specific Conductance (Field)	610 umho/cm		SM2510B
Temperature	14.31 °C		SM2550B(2)
Turbidity (Hach)	9.76 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	203.5 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0017 Sample Date: 05/12/2014 IDEM Sample #: AB16939
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	100.4 %		ASTM D888-09(C)
DO	8.78 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	678 umho/cm		SM2510B
Temperature	21.93 °C		SM2550B(2)
Turbidity (Hach)	24 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	17.4944 cf/sec		FM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3026991	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	37 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	22 mg/L	10	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	45 mg/L	25	EPA 300.0

Lab ID # 3026992	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID # 3026993	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3026994	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	EPA 353.2

Lab ID # 3026995	Result	Reporting Limit	Method
Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E

Lab ID # 3026996	Result	Reporting Limit	Method
TOC	4.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17816			
COD	15 mg/L	10	EPA 410.4
TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB16939			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1203.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0017 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17367
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	77.8 %		ASTM D888-09(C)
DO	7.31 mg/L		ASTM D888-09(C)
pH (Field)	7.36 SU		EPA 150.2
Specific Conductance (Field)	417 umho/cm		SM2510B
Temperature	18.27 °C		SM2550B(2)
Turbidity (Hach)	137 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	102.8663 cf/sec		FM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042460			
Alkalinity (as CaCO3)	140 mg/L	1	SM2320B
Chloride	16 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	59 mg/L	10	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 mg/L	10	SM2540C
Sulfate	17 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042461			
Hardness (as CaCO3)	200 mg/L	0.66	SM2340B
Calcium (Total)	53 mg/L	0.1	EPA 200.7
Magnesium (Total)	17 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042462			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042463	Nitrogen, Nitrate+Nitrite	6.1 mg/L	0.1	EPA 353.2
3042464	Phosphorus, Total	0.6 mg/L	0.05	SM4500P-E
3042465	TOC	6.8 mg/L	0.5	SM5310C
AA20588	COD	18 mg/L	10	EPA 410.4
	TKN	0.71 mg/L	0.3	SM4500N(Org)-B
AB17367	E. coli	2419.6 MPN/100mL	1	SM9223B
AB17367a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0017 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17541
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	100.5 %		ASTM D888-09(C)
DO	8.93 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	587 umho/cm		SM2510B
Temperature	21.09 °C		SM2550B(2)
Turbidity (Hach)	24.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	4.2723 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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Lab ID #	Result	Reporting Limit	Method
3060622			
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	27 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	40 mg/L	5	EPA 300.0
3060623			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	72 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7
3060624			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060625			
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2
3060626			
Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E
3060627			
TOC	6.2 mg/L	0.5	SM5310C
AA22933			
COD	13 mg/L	10	EPA 410.4
TKN	1.6 mg/L	0.3	SM4500N(Org)-B
AB17541			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	547.5 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0017 Sample Date: 07/15/2014 IDEM Sample #: AB18386
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Q2 Turb = 15.2

Lab ID #	Result	Reporting Limit	Method
% Sat	84.8 %		ASTM D888-09(C)
DO	7.33 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	597 umho/cm		SM2510B
Temperature	21.13 °C		SM2550B(2)
Turbidity (Hach)	10.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

SiteID: WMI-02-0017 Sample Date: 08/18/2014 IDEM Sample #: AB18731
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	233.9 %		ASTM D888-09(C)
DO	18.9 mg/L		ASTM D888-09(C)
pH (Field)	8.57 SU		EPA 150.2
Specific Conductance (Field)	713 umho/cm		SM2510B
Temperature	26.51 °C		SM2550B(2)
Turbidity (Hach)	8.13 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	0.0829 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087471	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	38 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	65 mg/L	25	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3087472	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	290 mg/L 66 mg/L 28 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3087473	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3087474	Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
3087475	Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E
3087476	TOC	5.1 mg/L	0.5	SM5310C
AA25795	COD TKN	14 mg/L 0.35 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB18731	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 35 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-02-0017 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19044
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	81.7 %	ASTM D888-09(C)
	DO	8.18 mg/L	ASTM D888-09(C)
	pH (Field)	7.64 SU	EPA 150.2
	Specific Conductance (Field)	499 umho/cm	SM2510B
	Temperature	15.35 °C	SM2550B(2)
	Turbidity (Hach)	17.4 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Flow	14.517 cf/sec	TM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method
3105476			
Alkalinity (as CaCO3)	190 mg/L	1	SM2320B
Chloride	17 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	19 mg/L	10	SM2540D
Solids, Total (TS)	290 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	29 mg/L	25	EPA 300.0
3105477			
Hardness (as CaCO3)	220 mg/L	0.66	SM2340B
Calcium (Total)	60 mg/L	0.1	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7
3105478			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3105479			
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2
3105480			
Phosphorus, Total	0.3 mg/L	0.05	SM4500P-E
3105481			
TOC	5.2 mg/L	0.5	SM5310C
AA28043			
COD	6 mg/L	10	EPA 410.4
TKN	0.79 mg/L	0.3	SM4500N(Org)-B
AB19044			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	816.4 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0017 Sample Date: 10/27/2014 IDEM Sample #: AB19227
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	148.1 %		ASTM D888-09(C)
DO	15.21 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	730 umho/cm		SM2510B
Temperature	14.1 °C		SM2550B(2)
Turbidity (Hach)	4.28 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	3.1802 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	4 Lookup		Observation

Lab ID # 3130416	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	37 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	43 mg/L	5	EPA 300.0

Lab ID # 3130417	Result	Reporting Limit	Method
Hardness (as CaCO3)	350 mg/L	0.66	SM2340B
Calcium (Total)	87 mg/L	0.1	EPA 200.7
Magnesium (Total)	31 mg/L	0.1	EPA 200.7

Lab ID # 3130418	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3130419	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.2

Lab ID # 3130420	Result	Reporting Limit	Method
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E

Lab ID # 3130421	Result	Reporting Limit	Method
TOC	4.3 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA31618			
COD	6 mg/L	10	EPA 410.4
TKN	0.49 mg/L	0.3	SM4500N(Org)-B
AB19227			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	151.5 MPN/100mL	1	SM9223B

SiteID: WMI-02-0017 **Sample Date:** 11/19/2014 **IDEM Sample #:** AB19606
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	121 %		ASTM D888-09(C)
DO	17.73 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	825 umho/cm		SM2510B
Temperature	-0.3 °C		SM2550B(2)
Turbidity (Hach)	4 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3142761			
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	40 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	470 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	470 mg/L	10	SM2540C
Sulfate	52 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3142762			
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	95 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3142763			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3142764			
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3142765	Phosphorus, Total	0.07 mg/L	0.05	SM4500P-E
3142766	TOC	2.9 mg/L	0.5	SM5310C
50107929002	COD	16.2 mg/L	10	EPA 410.4
	TKN	< 0.5 mg/L	0.5	EPA 351.2
AB19606	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	410.6 MPN/100mL	1	SM9223B

SiteID: WMI-02-0017 **Sample Date:** 12/15/2014 **IDEM Sample #:** AB19849
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	107.1 %	ASTM D888-09(C)
	DO	13.38 mg/L	ASTM D888-09(C)
	pH (Field)	8.11 SU	EPA 150.2
	Specific Conductance (Field)	675 umho/cm	SM2510B
	Temperature	5.84 °C	SM2550B(2)
	Turbidity (Hach)	5.75 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Flow	8.6934 cf/sec	FM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3156159	Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
	Chloride	29 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	420 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	39 mg/L	25	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3156160	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	340 mg/L 88 mg/L 29 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3156161	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3156162	Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	EPA 353.2
3156163	Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
3156164	TOC	3.4 mg/L	0.5	SM5310C
50109606005	COD TKN	8.2 mg/L < 0.5 mg/L	10 0.5	EPA 410.4 EPA 351.2

SiteID: WMI-02-0017 **Sample Date:** 01/20/2015 **IDEM Sample #:** AB20320
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	88 %	ASTM D888-09(C)
	DO	12.38 mg/L	ASTM D888-09(C)
	pH (Field)	7.53 SU	EPA 150.2
	Specific Conductance (Field)	342 umho/cm	SM2510B
	Temperature	1.33 °C	SM2550B(2)
	Turbidity (Hach)	42.2 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Flow	39.9002 cf/sec	FM D5389-95/D3858
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method	
3173768	Alkalinity (as CaCO3)	120 mg/L	1	SM2320B
	Chloride	19 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	14 mg/L	10	10	SM2540D
Solids, Total (TS)	210 mg/L	10	10	SM2540B
Solids, Total Dissolved (TDS)	180 mg/L	10	10	SM2540C
Sulfate	14 mg/L	5	5	EPA 300.0
Lab ID #	Result	Reporting Limit	Method	
3173769	Hardness (as CaCO3)	150 mg/L	0.66	SM2340B
	Calcium (Total)	38 mg/L	0.1	EPA 200.7
	Magnesium (Total)	13 mg/L	0.1	EPA 200.7
Lab ID #	Result	Reporting Limit	Method	
3173770	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID #	Result	Reporting Limit	Method	
3173771	Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	EPA 353.2
Lab ID #	Result	Reporting Limit	Method	
3173772	Phosphorus, Total	0.35 mg/L	0.05	SM4500P-E
Lab ID #	Result	Reporting Limit	Method	
3173773	TOC	6.9 mg/L	0.5	SM5310C
Lab ID #	Result	Reporting Limit	Method	
50111361003	COD	18.9 mg/L	10	EPA 410.4
	TKN	0.68 mg/L	0.5	EPA 351.2

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SiteID: WMI-02-0017 Sample Date: 03/16/2015 IDEM Sample #: AB20793
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	91.3 %	ASTM D888-09(C)
	DO	11.46 mg/L	ASTM D888-09(C)
	pH (Field)	7.79 SU	EPA 150.2
	Specific Conductance (Field)	523 umho/cm	SM2510B
	Temperature	5.6 °C	SM2550B(2)
	Turbidity (Hach)	23 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Flow	43.4001 cf/sec	FM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID # 3208936	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	190 mg/L	1 SM2320B
	Chloride	28 mg/L	6 EPA 300.0
	Solids, Suspended Total, (TSS)	28 mg/L	10 SM2540D
	Solids, Total (TS)	340 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	280 mg/L	10 SM2540C
	Sulfate	24 mg/L	15 EPA 300.0

Lab ID # 3208939	Result	Reporting Limit	Method
	Hardness (as CaCO3)	250 mg/L	0.66 SM2340B
	Calcium (Total)	66 mg/L	0.1 EPA 200.7
	Magnesium (Total)	22 mg/L	0.1 EPA 200.7

Lab ID # 3208940	Result	Reporting Limit	Method
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID # 3208943	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	3 mg/L	0.1 EPA 353.2

Lab ID # 3208946	Result	Reporting Limit	Method
	Phosphorus, Total	0.26 mg/L	0.05 SM4500P-E

Lab ID # 3208949	Result	Reporting Limit	Method
	TOC	4.7 mg/L	0.5 SM5310C

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Lab ID # 50114905004

Result

Reporting Limit

Method

	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.75 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0018 **USGS Hydrologic Unit:** 051201030206
Stream Name: Mississinewa River **County:** Delaware
Description: Strong Road **Latitude:** 40 17 30.21709 **Longitude:** -85 14 14.83787
Drainage: 240.014 **Site Number:** 14T-117

SiteID: WMI-02-0018 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16172
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	84.6 %	ASTM D888-09(C)
	DO	9.65 mg/L	ASTM D888-09(C)
	pH (Field)	8.09 SU	EPA 150.2
	Specific Conductance (Field)	607 umho/cm	SM2510B
	Temperature	9.45 °C	SM2550B(2)
	Turbidity (Hach)	43.1 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID # 3010836	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	230 mg/L	1 SM2320B
	Chloride	23 mg/L	6 EPA 300.0
	Fluoride	0.2 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	35 mg/L	10 SM2540D
	Solids, Total (TS)	400 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	350 mg/L	10 SM2540C
	Sulfate	34 mg/L	15 EPA 300.0

Lab ID # 3010837	Result	Reporting Limit	Method
	Hardness (as CaCO3)	310 mg/L	0.66 SM2340B
	Calcium (Total)	76 mg/L	0.1 EPA 200.7
	Magnesium (Total)	30 mg/L	0.1 EPA 200.7

Lab ID # 3010838	Result	Reporting Limit	Method
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID # 3010839	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	5.7 mg/L	0.1 EPA 353.2

Lab ID # 3010840	Result	Reporting Limit	Method
	Phosphorus, Total	0.27 mg/L	0.05 SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010841	TOC	3.8 mg/L	0.5	SM5310C
AA14508	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.59 mg/L	0.3	SM4500N(Org)-B
AB16172	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	228.2 MPN/100mL	1	SM9223B

SiteID: WMI-02-0018 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16416
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	89.4 %		ASTM D888-09(C)
	DO	9.15 mg/L		ASTM D888-09(C)
	pH (Field)	8.11 SU		EPA 150.2
	Specific Conductance (Field)	656 umho/cm		SM2510B
	Temperature	14.25 °C		SM2550B(2)
	Turbidity (Hach)	15.1 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16416	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	81.3 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0018 Sample Date: 04/29/2014 IDEM Sample #: AB16488
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Flooded

Lab ID #	Result	Reporting Limit	Method
% Sat	80.6 %		ASTM D888-09(C)
DO	8.63 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	460 umho/cm		SM2510B
Temperature	12.18 °C		SM2550B(2)
Turbidity (Hach)	524 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	3255 MPN/100mL	10	SM9223B

SiteID: WMI-02-0018 Sample Date: 05/06/2014 IDEM Sample #: AB16807
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	101.2 %		ASTM D888-09(C)
DO	10.71 mg/L		ASTM D888-09(C)
pH (Field)	8.15 SU		EPA 150.2
Specific Conductance (Field)	633 umho/cm		SM2510B
Temperature	12.71 °C		SM2550B(2)
Turbidity (Hach)	10.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	115.3 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0018 Sample Date: 05/13/2014 IDEM Sample #: AB16940
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	73.1 %		ASTM D888-09(C)
DO	6.71 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	615 umho/cm		SM2510B
Temperature	19.44 °C		SM2550B(2)
Turbidity (Hach)	48.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3026999	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	26 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	42 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	37 mg/L	25	EPA 300.0

Lab ID # 3027000	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	31 mg/L	0.1	EPA 200.7

Lab ID # 3027001	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3027002	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	3.1 mg/L	0.1	EPA 353.2

Lab ID # 3027003	Result	Reporting Limit	Method
Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E

Lab ID # 3027004	Result	Reporting Limit	Method
TOC	4.9 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17817			
COD	14 mg/L	10	EPA 410.4
TKN	1 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16940			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	307.6 MPN/100mL	1	SM9223B

SiteID: WMI-02-0018 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17378
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	83.5 %		ASTM D888-09(C)
DO	8.02 mg/L		ASTM D888-09(C)
pH (Field)	7.65 SU		EPA 150.2
Specific Conductance (Field)	557 umho/cm		SM2510B
Temperature	17.21 °C		SM2550B(2)
Turbidity (Hach)	130 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	5 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042477			
Alkalinity (as CaCO3)	170 mg/L	1	SM2320B
Chloride	20 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	79 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042478			
Hardness (as CaCO3)	270 mg/L	0.66	SM2340B
Calcium (Total)	68 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042479			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042480			
Nitrogen, Nitrate+Nitrite	16 mg/L	1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3042481	Phosphorus, Total	0.73 mg/L	0.05	SM4500P-E
3042482	TOC	6 mg/L	0.5	SM5310C
AA20550	COD	19 mg/L	10	EPA 410.4
	TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB17378	E. coli	1732.9 MPN/100mL	1	SM9223B
AB17378a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-02-0018 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17552
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	91.5 %		ASTM D888-09(C)
	DO	8.16 mg/L		ASTM D888-09(C)
	pH (Field)	8.17 SU		EPA 150.2
	Specific Conductance (Field)	681 umho/cm		SM2510B
	Temperature	20.93 °C		SM2550B(2)
	Turbidity (Hach)	15.3 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	3 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3060045	Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
	Chloride	23 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	410 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
	Sulfate	42 mg/L	5	EPA 300.0

**Indiana Department of Environmental Management
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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060046	Hardness (as CaCO3)	350 mg/L	0.66	SM2340B
	Calcium (Total)	83 mg/L	0.1	EPA 200.7
	Magnesium (Total)	33 mg/L	0.1	EPA 200.7
3060047	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060048	Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1	EPA 353.2
3060049	Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
3060050	TOC	3.2 mg/L	0.5	SM5310C
AA22934	COD	7 mg/L	10	EPA 410.4
	TKN	0.3 mg/L	0.3	SM4500N(Org)-B
AB17552	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WMI-02-0018 **Sample Date:** 08/12/2014 **IDEM Sample #:** AB18388
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	54.5 %		SM4500-OG
	DO	4.49 mg/L		SM4500-OG
	pH (Field)	8.14 SU		EPA 150.2
	Specific Conductance (Field)	666 umho/cm		SM2510B
	Temperature	23.57 °C		SM2550B(2)
	Turbidity (Hach)	21.3 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

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SiteID: WMI-02-0018 Sample Date: 08/19/2014 IDEM Sample #: AB18740
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	62.9 %		ASTM D888-09(C)
DO	5.56 mg/L		ASTM D888-09(C)
pH (Field)	8 SU		EPA 150.2
Specific Conductance (Field)	660 umho/cm		SM2510B
Temperature	21.29 °C		SM2550B(2)
Turbidity (Hach)	22.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	7.4083 cf/sec		FM D5089-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087121	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
Chloride	24 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	21 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	51 mg/L	25	EPA 300.0

Lab ID # 3087122	Result	Reporting Limit	Method
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	35 mg/L	0.1	EPA 200.7

Lab ID # 3087123	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087124	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

Lab ID # 3087125	Result	Reporting Limit	Method
Phosphorus, Total	0.23 mg/L	0.05	SM4500P-E

Lab ID # 3087126	Result	Reporting Limit	Method
TOC	4.2 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25796			
COD	9 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB18740			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: WMI-02-0018 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19055
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	79.5 %		ASTM D888-09(C)
DO	8.04 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	626 umho/cm		SM2510B
Temperature	14.79 °C		SM2550B(2)
Turbidity (Hach)	22 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	20.6411 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105520			
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	22 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	21 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	39 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105521			
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	70 mg/L	0.1	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105522			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #	Result	Reporting Limit	Method
3105523	Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1 EPA 353.2
3105524	Phosphorus, Total	0.19 mg/L	0.05 SM4500P-E
3105525	TOC	5.3 mg/L	0.5 SM5310C
AA28044	COD	11 mg/L	10 EPA 410.4
	TKN	0.63 mg/L	0.3 SM4500N(Org)-B
AB19055	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6 SM9223B
	E. coli	218.7 MPN/100mL	1 SM9223B

SiteID: WMI-02-0018 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19238
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	52.5 %	ASTM D888-09(C)
	DO	5.43 mg/L	ASTM D888-09(C)
	pH (Field)	7.55 SU	EPA 150.2
	Specific Conductance (Field)	750 umho/cm	SM2510B
	Temperature	13.65 °C	SM2550B(2)
	Turbidity (Hach)	5.82 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Flow	12.7911 cf/sec	FM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3130466	Alkalinity (as CaCO3)	300 mg/L	1 SM2320B
	Chloride	34 mg/L	2 EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10 SM2540D
	Solids, Total (TS)	440 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	430 mg/L	10 SM2540C
	Sulfate	42 mg/L	5 EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3130467	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	350 mg/L 84 mg/L 35 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3130468	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130469	Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
3130470	Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
3130471	TOC	5.3 mg/L	0.5	SM5310C
AA31621	COD TKN	8 mg/L 0.45 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB19238	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 43.5 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-02-0018 **Sample Date:** 11/19/2014 **IDEM Sample #:** AB19607
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	97.9 %	ASTM D888-09(C)
	DO	14.34 mg/L	ASTM D888-09(C)
	pH (Field)	8.11 SU	EPA 150.2
	Specific Conductance (Field)	813 umho/cm	SM2510B
	Temperature	-0.19 °C	SM2550B(2)
	Turbidity (Hach)	2.81 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Flow	15.7829 cf/sec	TM D5389-95/D3858
	Sky Conditions	3 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method
3142769			
Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
Chloride	35 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
Sulfate	50 mg/L	25	EPA 300.0
3142770			
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	89 mg/L	0.1	EPA 200.7
Magnesium (Total)	38 mg/L	0.1	EPA 200.7
3142771			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3142772			
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.2
3142773			
Phosphorus, Total	< 0.05 mg/L	0.05	SM4500P-E
3142774			
TOC	3.5 mg/L	0.5	SM5310C
50107929003			
COD	13.1 mg/L	10	EPA 410.4
TKN	< 0.5 mg/L	0.5	EPA 351.2
AB19607			
Coliforms (Total)	1203.3 MPN/100mL	1	SM9223B
E. coli	44.1 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0018 Sample Date: 12/15/2014 IDEM Sample #: AB19850
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	94.7 %		ASTM D888-09(C)
DO	12.31 mg/L		ASTM D888-09(C)
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	761 umho/cm		SM2510B
Temperature	4.2 °C		SM2550B(2)
Turbidity (Hach)	6.21 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	71.9006 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3156151	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	30 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	44 mg/L	25	EPA 300.0

Lab ID # 3156152	Result	Reporting Limit	Method
Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
Calcium (Total)	96 mg/L	0.1	EPA 200.7
Magnesium (Total)	37 mg/L	0.1	EPA 200.7

Lab ID # 3156153	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3156154	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	3.6 mg/L	0.1	EPA 353.2

Lab ID # 3156155	Result	Reporting Limit	Method
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E

Lab ID # 3156156	Result	Reporting Limit	Method
TOC	2.6 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
50109606004			
COD	< 10 mg/L	10	EPA 410.4
TKN	< 0.5 mg/L	0.5	EPA 351.2

SiteID: WMI-02-0018 **Sample Date:** 01/20/2015 **IDEM Sample #:** AB20321
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	86.5 %		ASTM D888-09(C)
DO	12.85 mg/L		ASTM D888-09(C)
pH (Field)	7.7 SU		EPA 150.2
Specific Conductance (Field)	426 umho/cm		SM2510B
Temperature	-0.59 °C		SM2550B(2)
Turbidity (Hach)	35.7 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3173776			
Alkalinity (as CaCO3)	150 mg/L	1	SM2320B
Chloride	19 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	21 mg/L	10	SM2540D
Solids, Total (TS)	250 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	220 mg/L	10	SM2540C
Sulfate	22 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3173777			
Hardness (as CaCO3)	200 mg/L	0.66	SM2340B
Calcium (Total)	48 mg/L	0.1	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3173778			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3173779			
Nitrogen, Nitrate+Nitrite	2.6 mg/L	0.1	EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3173780			
Phosphorus, Total	0.31 mg/L	0.05	SM4500P-E

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Lab ID #	Result	Reporting Limit	Method	
3173781	TOC	6.6 mg/L	0.5	SM5310C
50111361004	COD	16.2 mg/L	10	EPA 410.4
	TKN	0.86 mg/L	0.5	EPA 351.2

SiteID: WMI-02-0018 **Sample Date:** 03/16/2015 **IDEM Sample #:** AB20794
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	94.5 %	ASTM D888-09(C)
	DO	11.45 mg/L	ASTM D888-09(C)
	pH (Field)	7.82 SU	EPA 150.2
	Specific Conductance (Field)	484 umho/cm	SM2510B
	Temperature	7.07 °C	SM2550B(2)
	Turbidity (Hach)	53.9 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3208958	Alkalinity (as CaCO3)	170 mg/L	1	SM2320B
	Chloride	20 mg/L	6	EPA 300.0
	Solids, Suspended Total, (TSS)	65 mg/L	10	SM2540D
	Solids, Total (TS)	350 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
	Sulfate	26 mg/L	15	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3208959	Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
	Calcium (Total)	60 mg/L	0.1	EPA 200.7
	Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method	
3208960	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method	
3208961	Nitrogen, Nitrate+Nitrite	5.5 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3208962	Phosphorus, Total	0.4 mg/L	0.05	SM4500P-E
3208963	TOC	5.8 mg/L	0.5	SM5310C
50114905005	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.9 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC		WD		WS	AT
Sky Conditions		Wind Direction		Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-02-0019 **USGS Hydrologic Unit:** 051201030206
Stream Name: Mud Creek **County:** Delaware
Description: Edgewater Road **Latitude:** 40 17 14.77447 **Longitude:** -85 14 9.32404
Drainage: 12.547 **Site Number:** 14T-118

SiteID: WMI-02-0019 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16173
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: High volume of foam buildup

Lab ID #	Result	Reporting Limit	Method
	% Sat	84.4 %	ASTM D888-09(C)
	DO	10.54 mg/L	ASTM D888-09(C)
	pH (Field)	8.03 SU	EPA 150.2
	Specific Conductance (Field)	589 umho/cm	SM2510B
	Temperature	5.76 °C	SM2550B(2)
	Turbidity (Hach)	17 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID # 3010844	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	250 mg/L	1 SM2320B
	Chloride	17 mg/L	6 EPA 300.0
	Fluoride	0.1 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	14 mg/L	10 SM2540D
	Solids, Total (TS)	350 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10 SM2540C
	Sulfate	25 mg/L	15 EPA 300.0

Lab ID # 3010845	Result	Reporting Limit	Method
	Hardness (as CaCO3)	320 mg/L	0.66 SM2340B
	Calcium (Total)	75 mg/L	0.1 EPA 200.7
	Magnesium (Total)	31 mg/L	0.1 EPA 200.7

Lab ID # 3010846	Result	Reporting Limit	Method
	Nitrogen, Ammonia	0.1 mg/L	0.1 SM4500NH3-D

Lab ID # 3010847	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	3.2 mg/L	0.1 EPA 353.2

Lab ID # 3010848	Result	Reporting Limit	Method
	Phosphorus, Total	0.2 mg/L	0.05 SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3010849	TOC	4 mg/L	0.5	SM5310C
AA14509	COD	5.4 mg/L	10	EPA 410.4
	TKN	0.4 mg/L	0.3	SM4500N(Org)-B
AB16173	Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
	E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WMI-02-0019 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16417
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	98.7 %		ASTM D888-09(C)
	DO	10.25 mg/L		ASTM D888-09(C)
	pH (Field)	7.99 SU		EPA 150.2
	Specific Conductance (Field)	599 umho/cm		SM2510B
	Temperature	13.58 °C		SM2550B(2)
	Turbidity (Hach)	7.69 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16417	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	91.1 MPN/100mL	1	SM9223B

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SiteID: WMI-02-0019 Sample Date: 04/29/2014 IDEM Sample #: AB16489
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	78.3 %		ASTM D888-09(C)
DO	8.56 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	490 umho/cm		SM2510B
Temperature	11.33 °C		SM2550B(2)
Turbidity (Hach)	102 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	17329 MPN/100mL	10	SM9223B
E. coli	2909 MPN/100mL	10	SM9223B

SiteID: WMI-02-0019 Sample Date: 05/06/2014 IDEM Sample #: AB16808
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	94.1 %		ASTM D888-09(C)
DO	10.24 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	650 umho/cm		SM2510B
Temperature	11.51 °C		SM2550B(2)
Turbidity (Hach)	4.89 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	56.1 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
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SiteID: WMI-02-0019 Sample Date: 05/13/2014 IDEM Sample #: AB16941
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	68.5 %	ASTM D888-09(C)
	DO	6.54 mg/L	ASTM D888-09(C)
	pH (Field)	7.63 SU	EPA 150.2
	Specific Conductance (Field)	552 umho/cm	SM2510B
	Temperature	17.5 °C	SM2550B(2)
	Turbidity (Hach)	34.7 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID # 3027007	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	210 mg/L	1	SM2320B
	Chloride	20 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	15 mg/L	10	SM2540D
	Solids, Total (TS)	350 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
	Sulfate	20 mg/L	5	EPA 300.0

Lab ID # 3027008	Result	Reporting Limit	Method	
	Hardness (as CaCO3)	270 mg/L	0.66	SM2340B
	Calcium (Total)	65 mg/L	0.1	EPA 200.7
	Magnesium (Total)	26 mg/L	0.1	EPA 200.7

Lab ID # 3027009	Result	Reporting Limit	Method	
	Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

Lab ID # 3027010	Result	Reporting Limit	Method	
	Nitrogen, Nitrate+Nitrite	5 mg/L	0.1	EPA 353.2

Lab ID # 3027011	Result	Reporting Limit	Method	
	Phosphorus, Total	0.27 mg/L	0.05	SM4500P-E

Lab ID # 3027012	Result	Reporting Limit	Method	
	TOC	7.7 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17818			
COD	23 mg/L	10	EPA 410.4
TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB16941			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1203.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0019 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17389
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	85.4 %		ASTM D888-09(C)
DO	8.32 mg/L		ASTM D888-09(C)
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	518 umho/cm		SM2510B
Temperature	16.2 °C		SM2550B(2)
Turbidity (Hach)	41.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	5 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042485			
Alkalinity (as CaCO3)	200 mg/L	1	SM2320B
Chloride	16 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	23 mg/L	10	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042486			
Hardness (as CaCO3)	260 mg/L	0.66	SM2340B
Calcium (Total)	64 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042487			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042488			
Nitrogen, Nitrate+Nitrite	6.5 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042489	Phosphorus, Total	0.32 mg/L	0.05	SM4500P-E
3042490	TOC	5.5 mg/L	0.5	SM5310C
AA20551	COD	17 mg/L	10	EPA 410.4
	TKN	0.93 mg/L	0.3	SM4500N(Org)-B
AB17389	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	238.2 MPN/100mL	1	SM9223B

SiteID: WMI-02-0019 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17563
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	78.5 %	ASTM D888-09(C)
	DO	7.1 mg/L	ASTM D888-09(C)
	pH (Field)	8.03 SU	EPA 150.2
	Specific Conductance (Field)	670 umho/cm	SM2510B
	Temperature	20.2 °C	SM2550B(2)
	Turbidity (Hach)	27 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	7 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060053	Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
	Chloride	21 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	19 mg/L	10	SM2540D
	Solids, Total (TS)	410 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
	Sulfate	31 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060054	Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
	Calcium (Total)	80 mg/L	0.1	EPA 200.7
	Magnesium (Total)	35 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3060055	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060056	Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.2
3060057	Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E
3060058	TOC	3.9 mg/L	0.5	SM5310C
AA22935	COD	8 mg/L	10	EPA 410.4
	TKN	0.34 mg/L	0.3	SM4500N(Org)-B
AB17563	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	1203.3 MPN/100mL	1	SM9223B

SiteID: WMI-02-0019 **Sample Date:** 07/15/2014 **IDEM Sample #:** AB18385
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q2 turb = 28.6

Lab ID #		Result	Reporting Limit	Method
	% Sat	95.1 %		ASTM D888-09(C)
	DO	8.37 mg/L		ASTM D888-09(C)
	pH (Field)	7.93 SU		EPA 150.2
	Specific Conductance (Field)	678 umho/cm		SM2510B
	Temperature	20.12 °C		SM2550B(2)
	Turbidity	28.6 NTU		SM2130B Mod
	Air Temp	4 Lookup		Observation
	Sky Conditions	3 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	3 Lookup		Observation

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SiteID: WMI-02-0019 Sample Date: 08/19/2014 IDEM Sample #: AB18751
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	56.4 %		ASTM D888-09(C)
DO	5.26 mg/L		ASTM D888-09(C)
pH (Field)	7.7 SU		EPA 150.2
Specific Conductance (Field)	738 umho/cm		SM2510B
Temperature	18.64 °C		SM2550B(2)
Turbidity (Hach)	12.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3087129	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	22 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	38 mg/L	25	EPA 300.0

Lab ID # 3087130	Result	Reporting Limit	Method
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	37 mg/L	0.1	EPA 200.7

Lab ID # 3087131	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087132	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

Lab ID # 3087133	Result	Reporting Limit	Method
Phosphorus, Total	0.25 mg/L	0.05	SM4500P-E

Lab ID # 3087134	Result	Reporting Limit	Method
TOC	4.6 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25797			
COD	7 mg/L	10	EPA 410.4
TKN	0.95 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18751			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

SiteID: WMI-02-0019 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19066
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	78.5 %		ASTM D888-09(C)
DO	8.16 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	716 umho/cm		SM2510B
Temperature	13.6 °C		SM2550B(2)
Turbidity (Hach)	7.6 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105528			
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	19 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	33 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105529			
Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
Calcium (Total)	87 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105530			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105531			
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3105532	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
3105533	TOC	4.2 mg/L	0.5	SM5310C
AA28045	COD	8 mg/L	10	EPA 410.4
	TKN	0.48 mg/L	0.3	SM4500N(Org)-B
AB19066	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: WMI-02-0019 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19249
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	50 %		ASTM D888-09(C)
	DO	5.2 mg/L		ASTM D888-09(C)
	pH (Field)	7.46 SU		EPA 150.2
	Specific Conductance (Field)	771 umho/cm		SM2510B
	Temperature	13.71 °C		SM2550B(2)
	Turbidity (Hach)	4.79 NTU		EPA 180.1
	Air Temp	3 Lookup		Observation
	Sky Conditions	8 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3130452	Alkalinity (as CaCO3)	350 mg/L	1	SM2320B
	Chloride	28 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	450 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
	Sulfate	35 mg/L	5	EPA 300.0

Lab ID #		Result	Reporting Limit	Method
3130453	Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
	Calcium (Total)	90 mg/L	0.1	EPA 200.7
	Magnesium (Total)	38 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130454	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130455	Nitrogen, Nitrate+Nitrite 0.2 mg/L	0.1	EPA 353.2
3130456	Phosphorus, Total 0.12 mg/L	0.05	SM4500P-E
3130457	TOC 4.8 mg/L	0.5	SM5310C
AA31619	COD 11 mg/L	10	EPA 410.4
	TKN 0.47 mg/L	0.3	SM4500N(Org)-B
AB19249	Coliforms (Total) E. coli	1299.7 MPN/100mL 54.8 MPN/100mL	1 1
			SM9223B SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-04-0013 **USGS Hydrologic Unit:** 051201030402
Stream Name: Mississinewa River **County:** Delaware
Description: Dowden Avenue **Latitude:** 40 17 39.61263 **Longitude:** -85 14 54.42148
Drainage: 266.976 **Site Number:** 14T-119

SiteID: WMI-04-0013 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16174
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	84.2 %	ASTM D888-09(C)
	DO	9.66 mg/L	ASTM D888-09(C)
	pH (Field)	8.12 SU	EPA 150.2
	Specific Conductance (Field)	620 umho/cm	SM2510B
	Temperature	9.22 °C	SM2550B(2)
	Turbidity (Hach)	39 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID # 3010852	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	230 mg/L	1 SM2320B
	Chloride	25 mg/L	6 EPA 300.0
	Fluoride	0.2 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	31 mg/L	10 SM2540D
	Solids, Total (TS)	400 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	370 mg/L	10 SM2540C
	Sulfate	34 mg/L	15 EPA 300.0

Lab ID # 3010853	Result	Reporting Limit	Method
	Hardness (as CaCO3)	310 mg/L	0.66 SM2340B
	Calcium (Total)	78 mg/L	0.1 EPA 200.7
	Magnesium (Total)	30 mg/L	0.1 EPA 200.7

Lab ID # 3010854	Result	Reporting Limit	Method
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID # 3010855	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	5.5 mg/L	0.1 EPA 353.2

Lab ID # 3010856	Result	Reporting Limit	Method
	Phosphorus, Total	0.24 mg/L	0.05 SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3010857	TOC	3.8 mg/L	0.5	SM5310C
AA14510	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.81 mg/L	0.3	SM4500N(Org)-B
AB16174	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	325.5 MPN/100mL	1	SM9223B

SiteID: WMI-04-0013 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16418
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	89.8 %		ASTM D888-09(C)
	DO	9.17 mg/L		ASTM D888-09(C)
	pH (Field)	8.15 SU		EPA 150.2
	Specific Conductance (Field)	689 umho/cm		SM2510B
	Temperature	14.3 °C		SM2550B(2)
	Turbidity (Hach)	16.6 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16418	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	90.8 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0013 Sample Date: 04/29/2014 IDEM Sample #: AB16490
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	81.6 %		ASTM D888-09(C)
DO	8.73 mg/L		ASTM D888-09(C)
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	463 umho/cm		SM2510B
Temperature	12.26 °C		SM2550B(2)
Turbidity (Hach)	412 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	19863 MPN/100mL	10	SM9223B
E. coli	3255 MPN/100mL	10	SM9223B

SiteID: WMI-04-0013 Sample Date: 05/06/2014 IDEM Sample #: AB16809
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	106.8 %		ASTM D888-09(C)
DO	11.23 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	662 umho/cm		SM2510B
Temperature	12.99 °C		SM2550B(2)
Turbidity (Hach)	11 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	137.4 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0013 Sample Date: 05/13/2014 IDEM Sample #: AB16942
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	72.3 %		ASTM D888-09(C)
DO	6.61 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	632 umho/cm		SM2510B
Temperature	19.63 °C		SM2550B(2)
Turbidity (Hach)	39.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3027015	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	31 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	33 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	38 mg/L	15	EPA 300.0

Lab ID # 3027016	Result	Reporting Limit	Method
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	70 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3027017	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3027018	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	3.5 mg/L	0.1	EPA 353.2

Lab ID # 3027019	Result	Reporting Limit	Method
Phosphorus, Total	0.24 mg/L	0.05	SM4500P-E

Lab ID # 3027020	Result	Reporting Limit	Method
TOC	5.2 mg/L	0.5	SM5310C

**Indiana Department of Environmental Management
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Lab ID #	Result	Reporting Limit	Method
AA17819			
COD	14 mg/L	10	EPA 410.4
TKN	1.6 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16942			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

SiteID: WMI-04-0013 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17392
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	86.8 %		ASTM D888-09(C)
DO	7.89 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	562 umho/cm		SM2510B
Temperature	17.03 °C		SM2550B(2)
Turbidity (Hach)	125 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	5 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042493			
Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	73 mg/L	10	SM2540D
Solids, Total (TS)	440 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042494			
Hardness (as CaCO3)	270 mg/L	0.66	SM2340B
Calcium (Total)	67 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042495			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042496			
Nitrogen, Nitrate+Nitrite	13 mg/L	1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042497	Phosphorus, Total	0.68 mg/L	0.05	SM4500P-E
3042498	TOC	5.9 mg/L	0.5	SM5310C
AA20552	COD	22 mg/L	10	EPA 410.4
	TKN	0.86 mg/L	0.3	SM4500N(Org)-B
AB17392	E. coli	1413.6 MPN/100mL	1	SM9223B
AB17392a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0013 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17566
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	86.1 %	ASTM D888-09(C)
	DO	7.76 mg/L	ASTM D888-09(C)
	pH (Field)	8.12 SU	EPA 150.2
	Specific Conductance (Field)	708 umho/cm	SM2510B
	Temperature	20.9 °C	SM2550B(2)
	Turbidity (Hach)	15.2 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060061	Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
	Chloride	34 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	430 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
	Sulfate	42 mg/L	5	EPA 300.0

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060062	Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
	Calcium (Total)	81 mg/L	0.1	EPA 200.7
	Magnesium (Total)	32 mg/L	0.1	EPA 200.7
3060063	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060064	Nitrogen, Nitrate+Nitrite	2.7 mg/L	0.1	EPA 353.2
3060065	Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E
3060066	TOC	3.7 mg/L	0.5	SM5310C
AA22936	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB17566	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: WMI-04-0013 **Sample Date:** 08/06/2014 **IDEM Sample #:** AB18387
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	78 %		SM4500-OG
	DO	6.46 mg/L		SM4500-OG
	pH (Field)	8.23 SU		EPA 150.2
	Specific Conductance (Field)	660 umho/cm		SM2510B
	Temperature	23.03 °C		SM2550B(2)
	Turbidity (Hach)	18.5 NTU		EPA 180.1
	Air Temp	5 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

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SiteID: WMI-04-0013 Sample Date: 08/19/2014 IDEM Sample #: AB18754
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	61.2 %		ASTM D888-09(C)
DO	5.4 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	742 umho/cm		SM2510B
Temperature	21.2 °C		SM2550B(2)
Turbidity (Hach)	25.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087137	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
Chloride	31 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	19 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	55 mg/L	25	EPA 300.0
Lab ID # 3087138	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	69 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7
Lab ID # 3087139	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087140	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.2
Lab ID # 3087141	Result	Reporting Limit	Method
Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E
Lab ID # 3087142	Result	Reporting Limit	Method
TOC	4 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25798			
COD	14 mg/L	10	EPA 410.4
TKN	0.56 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18754			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

SiteID: WMI-04-0013 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19069
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	77.5 %		ASTM D888-09(C)
DO	7.8 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	696 umho/cm		SM2510B
Temperature	15.09 °C		SM2550B(2)
Turbidity (Hach)	20.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105536			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	38 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	18 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	37 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105537			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	70 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105538			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105539			
Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105540	Phosphorus, Total	0.31 mg/L	0.05	SM4500P-E
3105541	TOC	5 mg/L	0.5	SM5310C
AA28046	COD	10 mg/L	10	EPA 410.4
	TKN	0.63 mg/L	0.3	SM4500N(Org)-B
AB19069	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0013 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19252
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method	
	% Sat	61.6 %	SM4500-OG	
	DO	6.37 mg/L	SM4500-OG	
	pH (Field)	7.6 SU	EPA 150.2	
	Specific Conductance (Field)	797 umho/cm	SM2510B	
	Temperature	13.82 °C	SM2550B(2)	
	Turbidity (Hach)	6.77 NTU	EPA 180.1	
	Air Temp	3 Lookup	Observation	
	Sky Conditions	4 Lookup	Observation	
	Wind Direction	18 Lookup	Observation	
	Wind Strength	2 Lookup	Observation	
3130482	Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
	Chloride	46 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	460 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
	Sulfate	42 mg/L	5	EPA 300.0
3130483	Hardness (as CaCO3)	350 mg/L	0.66	SM2340B
	Calcium (Total)	85 mg/L	0.1	EPA 200.7
	Magnesium (Total)	34 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130484	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130485	Nitrogen, Nitrate+Nitrite 0.6 mg/L	0.1	EPA 353.2
3130486	Phosphorus, Total 0.15 mg/L	0.05	SM4500P-E
3130487	TOC 5 mg/L	0.5	SM5310C
AA31623	COD 6 mg/L	10	EPA 410.4
	TKN 0.49 mg/L	0.3	SM4500N(Org)-B
AB19252	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 96 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-04-0014 **USGS Hydrologic Unit:** 051201030401
Stream Name: Campbell Creek **County:** Delaware
Description: Schindel Road **Latitude:** 40 15 39.93262 **Longitude:** -85 17 21.55540
Drainage: 20.321 **Site Number:** 14T-120

SiteID: WMI-04-0014 **Sample Date:** 04/14/2014 **IDEM Sample #:** AB16175
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: FLOW - 18.3992 cfs

Lab ID #	Result	Reporting Limit	Method
% Sat	84.6 %		ASTM D888-09(C)
DO	8.77 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	590 umho/cm		SM2510B
Temperature	13.69 °C		SM2550B(2)
Turbidity (Hach)	33.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	18.3992 cf/sec		TM D5389-95/D3858
Sky Conditions	5 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3010996	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	21 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	28 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	29 mg/L	15	EPA 300.0

Lab ID # 3010997	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	75 mg/L	0.1	EPA 200.7
Magnesium (Total)	29 mg/L	0.1	EPA 200.7

Lab ID # 3010998	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010999	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1	EPA 353.2

Lab ID # 3011000	Result	Reporting Limit	Method
Phosphorus, Total	0.26 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011001	TOC	3.7 mg/L	0.5	SM5310C
AA14515	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.66 mg/L	0.3	SM4500N(Org)-B
AB16175	Coliforms (Total)	1299.7 MPN/100mL	1	SM9223B
	E. coli	410.6 MPN/100mL	1	SM9223B

SiteID: WMI-04-0014 **Sample Date:** 04/21/2014 **IDEM Sample #:** AB16419
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	113.3 %		ASTM D888-09(C)
	DO	11.73 mg/L		ASTM D888-09(C)
	pH (Field)	7.98 SU		EPA 150.2
	Specific Conductance (Field)	612 umho/cm		SM2510B
	Temperature	13.5 °C		SM2550B(2)
	Turbidity (Hach)	16.7 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16419	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	172.5 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0014 Sample Date: 04/28/2014 IDEM Sample #: AB16491
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	84 %		ASTM D888-09(C)
DO	8.91 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	627 umho/cm		SM2510B
Temperature	12.62 °C		SM2550B(2)
Turbidity (Hach)	21.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # AB16491	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1119.9 MPN/100mL	1	SM9223B

SiteID: WMI-04-0014 Sample Date: 05/05/2014 IDEM Sample #: AB16810
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	91.5 %		ASTM D888-09(C)
DO	9.84 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	640 umho/cm		SM2510B
Temperature	12 °C		SM2550B(2)
Turbidity (Hach)	8.93 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # AB16810	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	155.3 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0014 Sample Date: 05/12/2014 IDEM Sample #: AB16943
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	68.7 %		ASTM D888-09(C)
DO	6.52 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	551 umho/cm		SM2510B
Temperature	17.81 °C		SM2550B(2)
Turbidity (Hach)	71.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	9.1577 cf/sec		FM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3026751	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	1	SM2320B
Chloride	22 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	38 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	29 mg/L	25	EPA 300.0

Lab ID # 3026752	Result	Reporting Limit	Method
Hardness (as CaCO3)	270 mg/L	0.66	SM2340B
Calcium (Total)	62 mg/L	0.1	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7

Lab ID # 3026753	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3026754	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.3 mg/L	0.1	EPA 353.2

Lab ID # 3026755	Result	Reporting Limit	Method
Phosphorus, Total	0.22 mg/L	0.05	SM4500P-E

Lab ID # 3026756	Result	Reporting Limit	Method
TOC	8.2 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method	
AA17801				
	COD	26 mg/L	10	EPA 410.4
	TKN	1.3 mg/L	0.3	SM4500N(Org)-B
AB16943				
	E. coli	1732.9 MPN/100mL	1	SM9223B
AB16943a				
	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0014 **Sample Date:** 06/09/2014 **IDEM Sample #:** AB17362
Water Flow Type Riffle **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	80.9 %	ASTM D888-09(C)
	DO	7.71 mg/L	ASTM D888-09(C)
	pH (Field)	7.28 SU	EPA 150.2
	Specific Conductance (Field)	404 umho/cm	SM2510B
	Temperature	17.62 °C	SM2550B(2)
	Turbidity (Hach)	167 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Flow	53.9521 cf/sec	TM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3042334				
	Alkalinity (as CaCO3)	120 mg/L	1	SM2320B
	Chloride	16 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	72 mg/L	10	SM2540D
	Solids, Total (TS)	390 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
	Sulfate	17 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3042335				
	Hardness (as CaCO3)	190 mg/L	0.66	SM2340B
	Calcium (Total)	48 mg/L	0.1	EPA 200.7
	Magnesium (Total)	17 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method	
3042336				
	Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042337	Nitrogen, Nitrate+Nitrite	8.5 mg/L	0.1	EPA 353.2
3042338	Phosphorus, Total	0.8 mg/L	0.05	SM4500P-E
3042339	TOC	8 mg/L	0.5	SM5310C
AA20574	COD	26 mg/L	10	EPA 410.4
	TKN	0.97 mg/L	0.3	SM4500N(Org)-B
AB17362	E. coli	1986.3 MPN/100mL	1	SM9223B
AB17362a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0014 **Sample Date:** 07/07/2014 **IDEM Sample #:** AB17536
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	80.3 %		ASTM D888-09(C)
DO	8.09 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	672 umho/cm		SM2510B
Temperature	20.02 °C		SM2550B(2)
Turbidity (Hach)	11.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	2.59 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

**Indiana Department of Environmental Management
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Lab ID #	Result	Reporting Limit	Method
3060490			
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	26 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
Sulfate	44 mg/L	25	EPA 300.0
3060493			
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	74 mg/L	0.1	EPA 200.7
Magnesium (Total)	35 mg/L	0.1	EPA 200.7
3060494			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060497			
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.2
3060500			
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
3060503			
TOC	3 mg/L	0.5	SM5310C
AA22918			
COD	< 10 mg/L	10	EPA 410.4
TKN	0.32 mg/L	0.3	SM4500N(Org)-B
AB17536			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	206.4 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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SiteID: WMI-04-0014 Sample Date: 07/15/2014 IDEM Sample #: AB18384
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Q2 Turb = 8.8

Lab ID #	Result	Reporting Limit	Method
% Sat	102.2 %		ASTM D888-09(C)
DO	8.18 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	630 umho/cm		SM2510B
Temperature	21.16 °C		SM2550B(2)
Turbidity (Hach)	5.97 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

SiteID: WMI-04-0014 Sample Date: 08/18/2014 IDEM Sample #: AB18726
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	77.5 %		ASTM D888-09(C)
DO	7.27 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	730 umho/cm		SM2510B
Temperature	18.37 °C		SM2550B(2)
Turbidity (Hach)	7.96 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	0.8579 cf/sec		TM D5089-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087324	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	22 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	440 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	54 mg/L	25	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3087325	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	340 mg/L 75 mg/L 37 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3087326	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3087327	Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.2
3087328	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3087329	TOC	3.6 mg/L	0.5	SM5310C
AA25780	COD TKN	10 mg/L 0.36 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB18726	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 129.6 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-04-0014 **Sample Date:** 09/15/2014 **IDEM Sample #:** AB19039
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	82.9 %	ASTM D888-09(C)
	DO	8.57 mg/L	ASTM D888-09(C)
	pH (Field)	7.9 SU	EPA 150.2
	Specific Conductance (Field)	624 umho/cm	SM2510B
	Temperature	13.75 °C	SM2550B(2)
	Turbidity (Hach)	19.2 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Flow	2.9859 cf/sec	TM D5389-95/D3858
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method
3105344			
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	28 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	15 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	37 mg/L	25	EPA 300.0
3105347			
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	72 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7
3105348			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3105351			
Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.2
3105354			
Phosphorus, Total	0.16 mg/L	0.05	SM4500P-E
3105357			
TOC	5.4 mg/L	0.5	SM5310C
AA28028			
COD	8 mg/L	10	EPA 410.4
TKN	0.39 mg/L	0.3	SM4500N(Org)-B
AB19039			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	686.7 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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SiteID: WMI-04-0014 Sample Date: 10/27/2014 IDEM Sample #: AB19222
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	69.7 %		ASTM D888-09(C)
DO	7.69 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	757 umho/cm		SM2510B
Temperature	10.76 °C		SM2550B(2)
Turbidity (Hach)	5.64 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	2.3033 cf/sec		FM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3130284	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
Chloride	32 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	47 mg/L	25	EPA 300.0

Lab ID # 3130285	Result	Reporting Limit	Method
Hardness (as CaCO3)	370 mg/L	0.66	SM2340B
Calcium (Total)	90 mg/L	0.1	EPA 200.7
Magnesium (Total)	37 mg/L	0.1	EPA 200.7

Lab ID # 3130286	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3130287	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

Lab ID # 3130288	Result	Reporting Limit	Method
Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E

Lab ID # 3130289	Result	Reporting Limit	Method
TOC	3.7 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA31603			
COD	< 10 mg/L	10	EPA 410.4
TKN	1 mg/L	0.3	SM4500N(Org)-B
AB19222			
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	59.1 MPN/100mL	1	SM9223B

SiteID: WMI-04-0014 **Sample Date:** 11/19/2014 **IDEM Sample #:** AB19608
Water Flow Type Other **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Mostly Frozen

Lab ID #	Result	Reporting Limit	Method
% Sat	89.4 %		ASTM D888-09(C)
DO	13.21 mg/L		ASTM D888-09(C)
pH (Field)	7.45 SU		EPA 150.2
Specific Conductance (Field)	839 umho/cm		SM2510B
Temperature	-0.33 °C		SM2550B(2)
Turbidity (Hach)	3.71 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3142753			
Alkalinity (as CaCO3)	340 mg/L	1	SM2320B
Chloride	32 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	50 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3142754			
Hardness (as CaCO3)	400 mg/L	0.66	SM2340B
Calcium (Total)	93 mg/L	0.1	EPA 200.7
Magnesium (Total)	41 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3142755			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3142756			
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3142757	Phosphorus, Total < 0.05 mg/L	0.05	SM4500P-E
3142758	TOC 2.6 mg/L	0.5	SM5310C
50107929001	COD < 10 mg/L	10	EPA 410.4
	TKN < 0.5 mg/L	0.5	EPA 351.2

SiteID: WMI-04-0014 **Sample Date:** 12/15/2014 **IDEM Sample #:** AB19845
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 92 %		ASTM D888-09(C)
	DO 11.83 mg/L		ASTM D888-09(C)
	pH (Field) 8.01 SU		EPA 150.2
	Specific Conductance (Field) 741 umho/cm		SM2510B
	Temperature 4.65 °C		SM2550B(2)
	Turbidity (Hach) 4.69 NTU		EPA 180.1
	Air Temp 2 Lookup		Observation
	Flow 6.3148 cf/sec		TM D5389-95/D3858
	Sky Conditions 4 Lookup		Observation
	Wind Direction 27 Lookup		Observation
	Wind Strength 1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3156113	Alkalinity (as CaCO3) 320 mg/L	1	SM2320B
	Chloride 30 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 430 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 410 mg/L	10	SM2540C
	Sulfate 42 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3156116	Hardness (as CaCO3) 380 mg/L	0.66	SM2340B
	Calcium (Total) 92 mg/L	0.1	EPA 200.7
	Magnesium (Total) 36 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3156117	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #	Result	Reporting Limit	Method	
3156120	Nitrogen, Nitrate+Nitrite	1.3 mg/L	0.1	EPA 353.2
3156123	Phosphorus, Total	< 0.05 mg/L	0.05	SM4500P-E
3156126	TOC	2.3 mg/L	0.5	SM5310C
50109606001	COD	9.6 mg/L	10	EPA 410.4
	TKN	< 0.5 mg/L	0.5	EPA 351.2

SiteID: WMI-04-0014 **Sample Date:** 01/20/2015 **IDEM Sample #:** AB20316
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	88.2 %	ASTM D888-09(C)
	DO	12.93 mg/L	ASTM D888-09(C)
	pH (Field)	7.32 SU	EPA 150.2
	Specific Conductance (Field)	449 umho/cm	SM2510B
	Temperature	-0.1 °C	SM2550B(2)
	Turbidity (Hach)	27.9 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Flow	22.8179 cf/sec	FM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3173752	Alkalinity (as CaCO3)	170 mg/L	1	SM2320B
	Chloride	20 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	16 mg/L	10	SM2540D
	Solids, Total (TS)	270 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
	Sulfate	19 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3173753	Hardness (as CaCO3)	210 mg/L	0.66	SM2340B
	Calcium (Total)	51 mg/L	0.1	EPA 200.7
	Magnesium (Total)	20 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3173754	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D
3173755	Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.2
3173756	Phosphorus, Total	0.54 mg/L	0.05	SM4500P-E
3173757	TOC	5.7 mg/L	0.5	SM5310C
50111361001	COD	15.7 mg/L	10	EPA 410.4
	TKN	0.51 mg/L	0.5	EPA 351.2

SiteID: WMI-04-0014 **Sample Date:** 03/16/2015 **IDEM Sample #:** AB20789
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	87.5 %		ASTM D888-09(C)
	DO	10.9 mg/L		ASTM D888-09(C)
	pH (Field)	7.72 SU		EPA 150.2
	Specific Conductance (Field)	493 umho/cm		SM2510B
	Temperature	5.9 °C		SM2550B(2)
	Turbidity (Hach)	21.3 NTU		EPA 180.1
	Air Temp	3 Lookup		Observation
	Flow	46.5381 cf/sec		TM D5389-95/D3858
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3208912	Alkalinity (as CaCO3)	190 mg/L	1	SM2320B
	Chloride	22 mg/L	6	EPA 300.0
	Solids, Suspended Total, (TSS)	20 mg/L	10	SM2540D
	Solids, Total (TS)	320 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
	Sulfate	21 mg/L	15	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3208913	Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
	Calcium (Total)	60 mg/L	0.1	EPA 200.7
	Magnesium (Total)	22 mg/L	0.1	EPA 200.7
Lab ID #	Result	Reporting Limit	Method	
3208914	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D
Lab ID #	Result	Reporting Limit	Method	
3208915	Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1	EPA 353.2
Lab ID #	Result	Reporting Limit	Method	
3208916	Phosphorus, Total	0.28 mg/L	0.05	SM4500P-E
Lab ID #	Result	Reporting Limit	Method	
3208917	TOC	5.2 mg/L	0.5	SM5310C
Lab ID #	Result	Reporting Limit	Method	
50114905001	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.93 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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SiteID: WMI-04-0015 **USGS Hydrologic Unit:** 051201030402
Stream Name: Rees Ditch **County:** Jay
Description: Layne Drive **Latitude:** 40 22 0.53292 **Longitude:** -85 13 9.68814
Drainage: 1.428 **Site Number:** 14T-121

SiteID: WMI-04-0015 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16176
Water Flow Type: Glide **Water Appearance:** Clear **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	137.2 %		ASTM D888-09(C)
DO	17.04 mg/L		ASTM D888-09(C)
pH (Field)	8.16 SU		EPA 150.2
Specific Conductance (Field)	718 umho/cm		SM2510B
Temperature	6.03 °C		SM2550B(2)
Turbidity (Hach)	14.2 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010860	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	62 mg/L	10	EPA 300.0
Fluoride	0.1 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	12 mg/L	10	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	27 mg/L	15	EPA 300.0

Lab ID # 3010861	Result	Reporting Limit	Method
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	81 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3010862	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010863	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1	EPA 353.2

Lab ID # 3010864	Result	Reporting Limit	Method
Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3010865	TOC	4.1 mg/L	0.5	SM5310C
AA14511	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.57 mg/L	0.3	SM4500N(Org)-B
AB16176	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0015 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16420
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	104.4 %		ASTM D888-09(C)
	DO	11.83 mg/L		ASTM D888-09(C)
	pH (Field)	7.92 SU		EPA 150.2
	Specific Conductance (Field)	781 umho/cm		SM2510B
	Temperature	9.83 °C		SM2550B(2)
	Turbidity (Hach)	4.55 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16420	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	920.8 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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SiteID: WMI-04-0015 Sample Date: 04/29/2014 IDEM Sample #: AB16492
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	95.4 %		ASTM D888-09(C)
DO	10.21 mg/L		ASTM D888-09(C)
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	527 umho/cm		SM2510B
Temperature	12.22 °C		SM2550B(2)
Turbidity (Hach)	101 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16492			
E. coli	1553.1 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16492a			
Coliforms (Total)	24196 MPN/100mL	10	SM9223B

SiteID: WMI-04-0015 Sample Date: 05/06/2014 IDEM Sample #: AB16811
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	97.8 %		ASTM D888-09(C)
DO	11.28 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	842 umho/cm		SM2510B
Temperature	9.06 °C		SM2550B(2)
Turbidity (Hach)	3.74 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16811			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	2419.6 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0015 **Sample Date:** 05/13/2014 **IDEM Sample #:** AB16944
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	101.8 %		ASTM D888-09(C)
DO	10.54 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	726 umho/cm		SM2510B
Temperature	13.36 °C		SM2550B(2)
Turbidity (Hach)	7.17 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3027023	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
Chloride	50 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	24 mg/L	15	EPA 300.0

Lab ID # 3027024	Result	Reporting Limit	Method
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	86 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3027025	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3027026	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	3.5 mg/L	0.1	EPA 353.2

Lab ID # 3027027	Result	Reporting Limit	Method
Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E

Lab ID # 3027028	Result	Reporting Limit	Method
TOC	2.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17820			
	COD	5 mg/L	10
	TKN	0.94 mg/L	0.3
			EPA 410.4
			SM4500N(Org)-B
AB16944			
	E. coli	1986.3 MPN/100mL	1
			SM9223B
AB16944a			
	Coliforms (Total)	24196 MPN/100mL	10
			SM9223B

SiteID: WMI-04-0015 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17393
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	84.7 %	ASTM D888-09(C)
	DO	8.36 mg/L	ASTM D888-09(C)
	pH (Field)	7.32 SU	EPA 150.2
	Specific Conductance (Field)	564 umho/cm	SM2510B
	Temperature	15.91 °C	SM2550B(2)
	Turbidity (Hach)	45.1 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	8 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3042501			
	Alkalinity (as CaCO3)	200 mg/L	1
	Chloride	28 mg/L	2
	Solids, Suspended Total, (TSS)	18 mg/L	10
	Solids, Total (TS)	370 mg/L	10
	Solids, Total Dissolved (TDS)	360 mg/L	10
	Sulfate	16 mg/L	5
			SM2320B
			EPA 300.0
			SM2540D
			SM2540B
			SM2540C
			EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042502			
	Hardness (as CaCO3)	260 mg/L	0.66
	Calcium (Total)	67 mg/L	0.1
	Magnesium (Total)	23 mg/L	0.1
			SM2340B
			EPA 200.7
			EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042503			
	Nitrogen, Ammonia	< 0.1 mg/L	0.1
			SM4500NH3-D

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3042504	Nitrogen, Nitrate+Nitrite	9.3 mg/L	0.1	EPA 353.2
3042505	Phosphorus, Total	0.23 mg/L	0.05	SM4500P-E
3042506	TOC	4.7 mg/L	0.5	SM5310C
AA20553	COD	17 mg/L	10	EPA 410.4
	TKN	0.77 mg/L	0.3	SM4500N(Org)-B
AB17393	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: WMI-04-0015 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17567
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	85.4 %		ASTM D888-09(C)
	DO	7.81 mg/L		ASTM D888-09(C)
	pH (Field)	7.77 SU		EPA 150.2
	Specific Conductance (Field)	333 umho/cm		SM2510B
	Temperature	19.64 °C		SM2550B(2)
	Turbidity (Hach)	259 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	7 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060069	Alkalinity (as CaCO3)	100 mg/L	1	SM2320B
	Chloride	34 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	230 mg/L	10	SM2540D
	Solids, Total (TS)	460 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	200 mg/L	10	SM2540C
	Sulfate	13 mg/L	5	EPA 300.0

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060070	Hardness (as CaCO3)	160 mg/L	0.66	SM2340B
	Calcium (Total)	39 mg/L	0.1	EPA 200.7
	Magnesium (Total)	14 mg/L	0.1	EPA 200.7
3060071	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D
3060072	Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.2
3060073	Phosphorus, Total	0.87 mg/L	0.05	SM4500P-E
3060074	TOC	4.9 mg/L	0.5	SM5310C
AA22937	COD	14 mg/L	10	EPA 410.4
	TKN	0.38 mg/L	0.3	SM4500N(Org)-B
AB17567a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
	E. coli	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0015 **Sample Date:** 07/15/2014 **IDEM Sample #:** AB18383
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Turb = 5.7 NTU

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	60.7 %		SM4500-OG
	DO	5.68 mg/L		SM4500-OG
	pH (Field)	7.68 SU		EPA 150.2
	Specific Conductance (Field)	951 umho/cm		SM2510B
	Temperature	17.62 °C		SM2550B(2)
	Turbidity (Hach)	4.68 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

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SiteID: WMI-04-0015 Sample Date: 08/19/2014 IDEM Sample #: AB18755
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	35.5 %		ASTM D888-09(C)
DO	3.3 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	1300 umho/cm		SM2510B
Temperature	19.07 °C		SM2550B(2)
Turbidity (Hach)	9.63 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3087145	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
Chloride	180 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	700 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	670 mg/L	10	SM2540C
Sulfate	82 mg/L	25	EPA 300.0

Lab ID # 3087146	Result	Reporting Limit	Method
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	79 mg/L	0.1	EPA 200.7
Magnesium (Total)	35 mg/L	0.1	EPA 200.7

Lab ID # 3087147	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087148	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

Lab ID # 3087149	Result	Reporting Limit	Method
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E

Lab ID # 3087150	Result	Reporting Limit	Method
TOC	5.9 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25799			
COD	22 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18755			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WMI-04-0015 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19070
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	72.4 %		ASTM D888-09(C)
DO	7.16 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	850 umho/cm		SM2510B
Temperature	15.91 °C		SM2550B(2)
Turbidity (Hach)	8.93 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105544			
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	57 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	11 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
Sulfate	33 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105545			
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	88 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105546			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105547			
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3105548	Phosphorus, Total 0.13 mg/L	0.05	SM4500P-E
3105549	TOC 3.7 mg/L	0.5	SM5310C
AA28047	COD 8 mg/L	10	EPA 410.4
	TKN 0.58 mg/L	0.3	SM4500N(Org)-B
AB19070	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 1046.2 MPN/100mL	1	SM9223B

SiteID: WMI-04-0015 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19253
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 60.9 %		ASTM D888-09(C)
	DO 6.26 mg/L		ASTM D888-09(C)
	pH (Field) 7.51 SU		EPA 150.2
	Specific Conductance (Field) 842 umho/cm		SM2510B
	Temperature 14.12 °C		SM2550B(2)
	Turbidity (Hach) 9.14 NTU		EPA 180.1
	Air Temp 3 Lookup		Observation
	Sky Conditions 4 Lookup		Observation
	Wind Direction 18 Lookup		Observation
	Wind Strength 2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130490	Alkalinity (as CaCO3) 330 mg/L	1	SM2320B
	Chloride 53 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 470 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 460 mg/L	10	SM2540C
	Sulfate 31 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3130491	Hardness (as CaCO3) 380 mg/L	0.66	SM2340B
	Calcium (Total) 97 mg/L	0.1	EPA 200.7
	Magnesium (Total) 34 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3130492	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130493	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	EPA 353.2
3130494	Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
3130495	TOC	2.6 mg/L	0.5	SM5310C
AA31624	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.35 mg/L	0.3	SM4500N(Org)-B
AB19253	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	1553.1 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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Surface Water Results Summary**

SiteID: WMI-03-0003 **USGS Hydrologic Unit:** 051201030301
Stream Name: Big Lick Creek **County:** Blackford
Description: CR 700 E **Latitude:** 40 23 12.09502 **Longitude:** -85 14 20.46627
Drainage: 7.152 **Site Number:** 14T-122

SiteID: WMI-03-0003 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16177
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	105.7 %		ASTM D888-09(C)
DO	12.93 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	773 umho/cm		SM2510B
Temperature	6.61 °C		SM2550B(2)
Turbidity (Hach)	51.1 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3010876	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	1	SM2320B
Chloride	81 mg/L	10	EPA 300.0
Fluoride	0.3 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	15 mg/L	10	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	55 mg/L	15	EPA 300.0

Lab ID # 3010877	Result	Reporting Limit	Method
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7

Lab ID # 3010878	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3010879	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.6 mg/L	0.1	EPA 353.2

Lab ID # 3010880	Result	Reporting Limit	Method
Phosphorus, Total	0.43 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010881	TOC	7.3 mg/L	0.5	SM5310C
AA14513	COD	12 mg/L	10	EPA 410.4
	TKN	0.75 mg/L	0.3	SM4500N(Org)-B
AB16177	Coliforms (Total)	4106 MPN/100mL	10	SM9223B
	E. coli	1553.1 MPN/100mL	1	SM9223B

SiteID: WMI-03-0003 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16421
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	120.7 %		ASTM D888-09(C)
	DO	12.44 mg/L		ASTM D888-09(C)
	pH (Field)	8.01 SU		EPA 150.2
	Specific Conductance (Field)	1259 umho/cm		SM2510B
	Temperature	13.84 °C		SM2550B(2)
	Turbidity (Hach)	9.97 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16421	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	686.7 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0003 Sample Date: 04/29/2014 IDEM Sample #: AB16493
 Water Flow Type: Glide Water Appearance: Brown Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	85.5 %		ASTM D888-09(C)
DO	8.76 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	450 umho/cm		SM2510B
Temperature	14.21 °C		SM2550B(2)
Turbidity (Hach)	234 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	8164 MPN/100mL	10	SM9223B

SiteID: WMI-03-0003 Sample Date: 05/06/2014 IDEM Sample #: AB16812
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	150 %		ASTM D888-09(C)
DO	16.18 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	1317 umho/cm		SM2510B
Temperature	11.86 °C		SM2550B(2)
Turbidity (Hach)	9.42 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

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Surface Water Results Summary**

SiteID: WMI-03-0003 Sample Date: 05/13/2014 IDEM Sample #: AB16945
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	96.9 %		ASTM D888-09(C)
DO	8.7 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	1002 umho/cm		SM2510B
Temperature	20.45 °C		SM2550B(2)
Turbidity (Hach)	25 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3027071	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	110 mg/L	20	EPA 300.0
Solids, Suspended Total, (TSS)	17 mg/L	10	SM2540D
Solids, Total (TS)	630 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	610 mg/L	10	SM2540C
Sulfate	98 mg/L	15	EPA 300.0

Lab ID # 3027072	Result	Reporting Limit	Method
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	82 mg/L	0.1	EPA 200.7
Magnesium (Total)	32 mg/L	0.1	EPA 200.7

Lab ID # 3027073	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.4 mg/L	0.1	SM4500NH3-D

Lab ID # 3027074	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	5.8 mg/L	0.1	EPA 353.2

Lab ID # 3027075	Result	Reporting Limit	Method
Phosphorus, Total	0.46 mg/L	0.05	SM4500P-E

Lab ID # 3027076	Result	Reporting Limit	Method
TOC	8.2 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17821			
COD	24 mg/L	10	EPA 410.4
TKN	2.3 mg/L	0.3	SM4500N(Org)-B
AB16945			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1732.9 MPN/100mL	1	SM9223B

SiteID: WMI-03-0003 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17394
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	81.2 %		ASTM D888-09(C)
DO	7.76 mg/L		ASTM D888-09(C)
pH (Field)	7.52 SU		EPA 150.2
Specific Conductance (Field)	583 umho/cm		SM2510B
Temperature	17.42 °C		SM2550B(2)
Turbidity (Hach)	84.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042509			
Alkalinity (as CaCO3)	160 mg/L	1	SM2320B
Chloride	42 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	41 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	41 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042510			
Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
Calcium (Total)	59 mg/L	0.1	EPA 200.7
Magnesium (Total)	20 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042511			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042512			
Nitrogen, Nitrate+Nitrite	5.5 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042513	Phosphorus, Total	0.5 mg/L	0.05	SM4500P-E
3042514	TOC	6.3 mg/L	0.5	SM5310C
AA20554	COD	24 mg/L	10	EPA 410.4
	TKN	0.9 mg/L	0.3	SM4500N(Org)-B
AB17394	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	980.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0003 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17568
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method	
	% Sat	84.3 %	ASTM D888-09(C)	
	DO	7.64 mg/L	ASTM D888-09(C)	
	pH (Field)	7.85 SU	EPA 150.2	
	Specific Conductance (Field)	1349 umho/cm	SM2510B	
	Temperature	19.89 °C	SM2550B(2)	
	Turbidity (Hach)	37 NTU	EPA 180.1	
	Air Temp	4 Lookup	Observation	
	Sky Conditions	4 Lookup	Observation	
	Wind Direction	27 Lookup	Observation	
	Wind Strength	1 Lookup	Observation	
3060077	Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
	Chloride	190 mg/L	20	EPA 300.0
	Solids, Suspended Total, (TSS)	37 mg/L	10	SM2540D
	Solids, Total (TS)	870 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	810 mg/L	10	SM2540C
	Sulfate	140 mg/L	50	EPA 300.0
3060078	Hardness (as CaCO3)	400 mg/L	0.66	SM2340B
	Calcium (Total)	94 mg/L	0.1	EPA 200.7
	Magnesium (Total)	38 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060079	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D
3060080	Nitrogen, Nitrate+Nitrite	4.9 mg/L	0.1	EPA 353.2
3060081	Phosphorus, Total	0.8 mg/L	0.05	SM4500P-E
3060082	TOC	6.9 mg/L	0.5	SM5310C
AA22938	COD	20 mg/L	10	EPA 410.4
	TKN	0.4 mg/L	0.3	SM4500N(Org)-B
AB17568	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-03-0003 **Sample Date:** 07/15/2014 **IDEM Sample #:** AB18382
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	100.2 %	SM4500-OG
	DO	8.61 mg/L	SM4500-OG
	pH (Field)	8.2 SU	EPA 150.2
	Specific Conductance (Field)	1470 umho/cm	SM2510B
	Temperature	21.02 °C	SM2550B(2)
	Turbidity (Hach)	5.35 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-03-0003 Sample Date: 08/19/2014 IDEM Sample #: AB18756
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	119.7 %		ASTM D888-09(C)
DO	10.72 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	2937 umho/cm		SM2510B
Temperature	20.23 °C		SM2550B(2)
Turbidity (Hach)	4.05 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087153	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
Chloride	550 mg/L	100	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	1700 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	1600 mg/L	10	SM2540C
Sulfate	210 mg/L	25	EPA 300.0
Lab ID # 3087154	Result	Reporting Limit	Method
Hardness (as CaCO3)	520 mg/L	0.66	SM2340B
Calcium (Total)	120 mg/L	0.1	EPA 200.7
Magnesium (Total)	53 mg/L	0.1	EPA 200.7
Lab ID # 3087155	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087156	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	9.6 mg/L	0.1	EPA 353.2
Lab ID # 3087157	Result	Reporting Limit	Method
Phosphorus, Total	0.96 mg/L	0.05	SM4500P-E
Lab ID # 3087158	Result	Reporting Limit	Method
TOC	5.1 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25800			
COD	22 mg/L	10	EPA 410.4
TKN	0.82 mg/L	0.3	SM4500N(Org)-B
AB18756			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	143 MPN/100mL	1	SM9223B

SiteID: WMI-03-0003 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19071
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	74.6 %		ASTM D888-09(C)
DO	7.49 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	828 umho/cm		SM2510B
Temperature	15.11 °C		SM2550B(2)
Turbidity (Hach)	33.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105552			
Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
Chloride	92 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	23 mg/L	10	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
Sulfate	69 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105553			
Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
Calcium (Total)	62 mg/L	0.1	EPA 200.7
Magnesium (Total)	23 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105554			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105555			
Nitrogen, Nitrate+Nitrite	2 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3105556	Phosphorus, Total 0.37 mg/L	0.05	SM4500P-E
3105557	TOC 5.2 mg/L	0.5	SM5310C
AA28048	COD 13 mg/L	10	EPA 410.4
	TKN 0.65 mg/L	0.3	SM4500N(Org)-B
AB19071	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 365.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0003 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19254
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 61.1 %		ASTM D888-09(C)
	DO 6.18 mg/L		ASTM D888-09(C)
	pH (Field) 7.54 SU		EPA 150.2
	Specific Conductance (Field) 1772 umho/cm		SM2510B
	Temperature 14.65 °C		SM2550B(2)
	Turbidity (Hach) 6.08 NTU		EPA 180.1
	Air Temp 3 Lookup		Observation
	Sky Conditions 4 Lookup		Observation
	Wind Direction 18 Lookup		Observation
	Wind Strength 3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130498	Alkalinity (as CaCO3) 300 mg/L	1	SM2320B
	Chloride 300 mg/L	40	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 1000 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 1000 mg/L	10	SM2540C
	Sulfate 83 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3130499	Hardness (as CaCO3) 440 mg/L	0.66	SM2340B
	Calcium (Total) 100 mg/L	0.1	EPA 200.7
	Magnesium (Total) 44 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130500	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130501	Nitrogen, Nitrate+Nitrite	5.9 mg/L	0.1	EPA 353.2
3130502	Phosphorus, Total	0.49 mg/L	0.05	SM4500P-E
3130503	TOC	4.3 mg/L	0.5	SM5310C
AA31625	COD	13 mg/L	10	EPA 410.4
	TKN	0.53 mg/L	0.3	SM4500N(Org)-B
AB19254	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	547.5 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-04-0018 **USGS Hydrologic Unit:** 051201030402
Stream Name: Rees Ditch **County:** Delaware
Description: CR 350 E **Latitude:** 40 20 8.40445 **Longitude:** -85 19 24.36091
Drainage: 13.065 **Site Number:** 14T-123

SiteID: WMI-04-0018 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16179
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	90.8 %	ASTM D888-09(C)
	DO	11.14 mg/L	ASTM D888-09(C)
	pH (Field)	7.79 SU	EPA 150.2
	Specific Conductance (Field)	622 umho/cm	SM2510B
	Temperature	6.47 °C	SM2550B(2)
	Turbidity (Hach)	21 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3010921	Alkalinity (as CaCO3)	250 mg/L	1 SM2320B
	Chloride	24 mg/L	6 EPA 300.0
	Fluoride	0.2 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	14 mg/L	10 SM2540D
	Solids, Total (TS)	370 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	370 mg/L	10 SM2540C
	Sulfate	39 mg/L	15 EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3010924	Hardness (as CaCO3)	320 mg/L	0.66 SM2340B
	Calcium (Total)	83 mg/L	0.1 EPA 200.7
	Magnesium (Total)	27 mg/L	0.1 EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3010925	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3010928	Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1 EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3010931	Phosphorus, Total	0.16 mg/L	0.05 SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3010934	TOC	4.2 mg/L	0.5	SM5310C
AA14514	COD	5.4 mg/L	10	EPA 410.4
	TKN	0.55 mg/L	0.3	SM4500N(Org)-B
AB16179	Coliforms (Total)	1553.1 MPN/100mL	1	SM9223B
	E. coli	129.6 MPN/100mL	1	SM9223B

SiteID: WMI-04-0018 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16423
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Nesting geese directly upstream

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	98 %		ASTM D888-09(C)
	DO	10.29 mg/L		ASTM D888-09(C)
	pH (Field)	7.84 SU		EPA 150.2
	Specific Conductance (Field)	696 umho/cm		SM2510B
	Temperature	13.03 °C		SM2550B(2)
	Turbidity (Hach)	12.7 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16423	Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
	E. coli	275.5 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0018 Sample Date: 04/29/2014 IDEM Sample #: AB16495
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	78 %		ASTM D888-09(C)
DO	8.14 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	382 umho/cm		SM2510B
Temperature	13.35 °C		SM2550B(2)
Turbidity (Hach)	208 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	2142 MPN/100mL	10	SM9223B

SiteID: WMI-04-0018 Sample Date: 05/06/2014 IDEM Sample #: AB16814
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	100.7 %		ASTM D888-09(C)
DO	10.96 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	712 umho/cm		SM2510B
Temperature	11.45 °C		SM2550B(2)
Turbidity (Hach)	8.18 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	88.6 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0018 Sample Date: 05/13/2014 IDEM Sample #: AB16947
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	64.7 %		ASTM D888-09(C)
DO	5.99 mg/L		ASTM D888-09(C)
pH (Field)	7.46 SU		EPA 150.2
Specific Conductance (Field)	690 umho/cm		SM2510B
Temperature	18.99 °C		SM2550B(2)
Turbidity (Hach)	6.91 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3027079	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
Chloride	39 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	44 mg/L	15	EPA 300.0

Lab ID # 3027080	Result	Reporting Limit	Method
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	81 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID # 3027081	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3027082	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2

Lab ID # 3027083	Result	Reporting Limit	Method
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E

Lab ID # 3027084	Result	Reporting Limit	Method
TOC	4.7 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17822			
COD	12 mg/L	10	EPA 410.4
TKN	0.98 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16947			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	193.5 MPN/100mL	1	SM9223B

SiteID: WMI-04-0018 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17395
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	68.2 %		ASTM D888-09(C)
DO	6.62 mg/L		ASTM D888-09(C)
pH (Field)	7.24 SU		EPA 150.2
Specific Conductance (Field)	545 umho/cm		SM2510B
Temperature	16.32 °C		SM2550B(2)
Turbidity (Hach)	53.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042517			
Alkalinity (as CaCO3)	190 mg/L	1	SM2320B
Chloride	16 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	28 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	27 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042518			
Hardness (as CaCO3)	260 mg/L	0.66	SM2340B
Calcium (Total)	68 mg/L	0.1	EPA 200.7
Magnesium (Total)	21 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042519			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042520			
Nitrogen, Nitrate+Nitrite	5.4 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042521	Phosphorus, Total	0.3 mg/L	0.05	SM4500P-E
3042522	TOC	5.9 mg/L	0.5	SM5310C
AA20555	COD	22 mg/L	10	EPA 410.4
	TKN	0.9 mg/L	0.3	SM4500N(Org)-B
AB17395	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0018 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17569
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	87.2 %	ASTM D888-09(C)
	DO	8.04 mg/L	ASTM D888-09(C)
	pH (Field)	7.64 SU	EPA 150.2
	Specific Conductance (Field)	217 umho/cm	SM2510B
	Temperature	19.34 °C	SM2550B(2)
	Turbidity (Hach)	1000 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060085	Alkalinity (as CaCO3)	81 mg/L	1	SM2320B
	Chloride	6.7 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	3000 mg/L	10	SM2540D
	Solids, Total (TS)	3400 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
	Sulfate	27 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060086	Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
	Calcium (Total)	50 mg/L	0.1	EPA 200.7
	Magnesium (Total)	24 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060087	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D
3060088	Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2
3060089	Phosphorus, Total	0.98 mg/L	0.05	SM4500P-E
3060090	TOC	6.7 mg/L	0.5	SM5310C
AA22939	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.3 mg/L	0.3	SM4500N(Org)-B
AB17569a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
	E. coli	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0018 **Sample Date:** 07/15/2014 **IDEM Sample #:** AB18381
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	68 %	SM4500-OG
	DO	5.35 mg/L	SM4500-OG
	pH (Field)	7.71 SU	EPA 150.2
	Specific Conductance (Field)	703 umho/cm	SM2510B
	Temperature	20.08 °C	SM2550B(2)
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-04-0018 Sample Date: 08/19/2014 IDEM Sample #: AB18757
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	59.6 %		ASTM D888-09(C)
DO	5.72 mg/L		ASTM D888-09(C)
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	774 umho/cm		SM2510B
Temperature	17.36 °C		SM2550B(2)
Turbidity (Hach)	5.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087161	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
Chloride	17 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	58 mg/L	25	EPA 300.0
Lab ID # 3087162	Result	Reporting Limit	Method
Hardness (as CaCO3)	370 mg/L	0.66	SM2340B
Calcium (Total)	97 mg/L	0.1	EPA 200.7
Magnesium (Total)	31 mg/L	0.1	EPA 200.7
Lab ID # 3087163	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087164	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.2
Lab ID # 3087165	Result	Reporting Limit	Method
Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
Lab ID # 3087166	Result	Reporting Limit	Method
TOC	2.4 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25801			
COD	7 mg/L	10	EPA 410.4
TKN	0.47 mg/L	0.3	SM4500N(Org)-B
AB18757			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WMI-04-0018 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19072
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	72.6 %		ASTM D888-09(C)
DO	7.53 mg/L		ASTM D888-09(C)
pH (Field)	7.48 SU		EPA 150.2
Specific Conductance (Field)	719 umho/cm		SM2510B
Temperature	13.67 °C		SM2550B(2)
Turbidity (Hach)	6.17 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105560			
Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
Chloride	18 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	49 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105561			
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	94 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105562			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105563			
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3105564	Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
3105565	TOC	3.2 mg/L	0.5	SM5310C
AA28049	COD	8 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB19072	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	547.5 MPN/100mL	1	SM9223B

SiteID: WMI-04-0018 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19255
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	59.9 %		ASTM D888-09(C)
	DO	6.24 mg/L		ASTM D888-09(C)
	pH (Field)	7.33 SU		EPA 150.2
	Specific Conductance (Field)	743 umho/cm		SM2510B
	Temperature	13.48 °C		SM2550B(2)
	Turbidity (Hach)	5.33 NTU		EPA 180.1
	Air Temp	3 Lookup		Observation
	Sky Conditions	7 Lookup		Observation
	Wind Direction	18 Lookup		Observation
	Wind Strength	1 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3130506	Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
	Chloride	32 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	430 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
	Sulfate	59 mg/L	5	EPA 300.0

Lab ID #		Result	Reporting Limit	Method
3130507	Hardness (as CaCO3)	370 mg/L	0.66	SM2340B
	Calcium (Total)	96 mg/L	0.1	EPA 200.7
	Magnesium (Total)	31 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130508	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130509	Nitrogen, Nitrate+Nitrite 0.3 mg/L	0.1	EPA 353.2
3130510	Phosphorus, Total 0.05 mg/L	0.05	SM4500P-E
3130511	TOC 3.3 mg/L	0.5	SM5310C
AA31626	COD 8 mg/L	10	EPA 410.4
	TKN 0.32 mg/L	0.3	SM4500N(Org)-B
AB19255	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 1986.3 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-04-0016 **USGS Hydrologic Unit:** 051201030402
Stream Name: Bosman Ditch **County:** Delaware
Description: CR 900 N **Latitude:** 40 19 14.01383 **Longitude:** -85 18 6.72481
Drainage: 5.452 **Site Number:** 14T-124

SiteID: WMI-04-0016 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16180
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	101.8 %		ASTM D888-09(C)
DO	12.48 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	586 umho/cm		SM2510B
Temperature	6.54 °C		SM2550B(2)
Turbidity (Hach)	17 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	22 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	33 mg/L	15	EPA 300.0

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	79 mg/L	0.1	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.2

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3011017	TOC	4.1 mg/L	0.5	SM5310C
AA14517	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.37 mg/L	0.3	SM4500N(Org)-B
AB16180	Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
	E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WMI-04-0016 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16424
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	116.1 %		ASTM D888-09(C)
	DO	12.17 mg/L		ASTM D888-09(C)
	pH (Field)	8.04 SU		EPA 150.2
	Specific Conductance (Field)	625 umho/cm		SM2510B
	Temperature	13.24 °C		SM2550B(2)
	Turbidity (Hach)	6.33 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16424	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	124.6 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0016 Sample Date: 04/29/2014 IDEM Sample #: AB16496
 Water Flow Type: Glide Water Appearance: Brown Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	88.4 %		ASTM D888-09(C)
DO	9.14 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	427 umho/cm		SM2510B
Temperature	13.77 °C		SM2550B(2)
Turbidity (Hach)	158 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	2382 MPN/100mL	10	SM9223B

SiteID: WMI-04-0016 Sample Date: 05/06/2014 IDEM Sample #: AB16815
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	126.6 %		ASTM D888-09(C)
DO	13.72 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	625 umho/cm		SM2510B
Temperature	11.71 °C		SM2550B(2)
Turbidity (Hach)	4.74 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	52 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0016 Sample Date: 05/13/2014 IDEM Sample #: AB16948
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	99 %		ASTM D888-09(C)
DO	9.02 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	607 umho/cm		SM2510B
Temperature	19.85 °C		SM2550B(2)
Turbidity (Hach)	7.94 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID # 3027087	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	24 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	33 mg/L	15	EPA 300.0
Lab ID # 3027088	Result	Reporting Limit	Method
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	74 mg/L	0.1	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7
Lab ID # 3027089	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3027090	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.2
Lab ID # 3027091	Result	Reporting Limit	Method
Phosphorus, Total	0.06 mg/L	0.05	SM4500P-E
Lab ID # 3027092	Result	Reporting Limit	Method
TOC	4.1 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17823			
COD	5 mg/L	10	EPA 410.4
TKN	0.94 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16948			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: WMI-04-0016 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17396
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	81.2 %		ASTM D888-09(C)
DO	7.94 mg/L		ASTM D888-09(C)
pH (Field)	7.46 SU		EPA 150.2
Specific Conductance (Field)	450 umho/cm		SM2510B
Temperature	16.33 °C		SM2550B(2)
Turbidity (Hach)	58.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042525			
Alkalinity (as CaCO3)	170 mg/L	1	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	29 mg/L	10	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	22 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042526			
Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
Calcium (Total)	59 mg/L	0.1	EPA 200.7
Magnesium (Total)	19 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042527			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042528			
Nitrogen, Nitrate+Nitrite	4.1 mg/L	0.1	EPA 353.2

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3042529	Phosphorus, Total	0.27 mg/L	0.05	SM4500P-E
3042530	TOC	6.7 mg/L	0.5	SM5310C
AA20556	COD	21 mg/L	10	EPA 410.4
	TKN	0.8 mg/L	0.3	SM4500N(Org)-B
AB17396	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	770.1 MPN/100mL	1	SM9223B

SiteID: WMI-04-0016 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17570
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	69.7 %		ASTM D888-09(C)
	DO	8.31 mg/L		ASTM D888-09(C)
	pH (Field)	7.53 SU		EPA 150.2
	Specific Conductance (Field)	143 umho/cm		SM2510B
	Temperature	19.19 °C		SM2550B(2)
	Turbidity (Hach)	1000 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060093	Alkalinity (as CaCO3)	60 mg/L	1	SM2320B
	Chloride	4.9 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	2500 mg/L	10	SM2540D
	Solids, Total (TS)	2500 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	140 mg/L	10	SM2540C
	Sulfate	9.2 mg/L	5	EPA 300.0

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060094	Hardness (as CaCO3)	160 mg/L	0.66	SM2340B
	Calcium (Total)	31 mg/L	0.1	EPA 200.7
	Magnesium (Total)	19 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3060095	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060096	Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2
3060097	Phosphorus, Total	0.78 mg/L	0.05	SM4500P-E
3060098	TOC	4.6 mg/L	0.5	SM5310C
AA22940	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB17570a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
	E. coli	10462 MPN/100mL	10	SM9223B

SiteID: WMI-04-0016 **Sample Date:** 07/15/2014 **IDEM Sample #:** AB18380
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	57.6 %		SM4500-OG
	DO	5.16 mg/L		SM4500-OG
	pH (Field)	7.79 SU		EPA 150.2
	Specific Conductance (Field)	659 umho/cm		SM2510B
	Temperature	19.27 °C		SM2550B(2)
	Turbidity (Hach)	3.4 NTU		EPA 180.1
	Air Temp	5 Lookup		Observation
	Sky Conditions	3 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

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SiteID: WMI-04-0016 Sample Date: 08/19/2014 IDEM Sample #: AB18758
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	70.3 %		ASTM D888-09(C)
DO	6.72 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	743 umho/cm		SM2510B
Temperature	17.38 °C		SM2550B(2)
Turbidity (Hach)	3.16 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087169	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	18 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	64 mg/L	25	EPA 300.0
Lab ID # 3087170	Result	Reporting Limit	Method
Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
Calcium (Total)	95 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7
Lab ID # 3087171	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087172	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2
Lab ID # 3087173	Result	Reporting Limit	Method
Phosphorus, Total	< 0.05 mg/L	0.05	SM4500P-E
Lab ID # 3087174	Result	Reporting Limit	Method
TOC	1.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25802			
COD	10 mg/L	10	EPA 410.4
TKN	0.4 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18758			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: WMI-04-0016 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19073
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	76.6 %		ASTM D888-09(C)
DO	7.9 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	627 umho/cm		SM2510B
Temperature	13.93 °C		SM2550B(2)
Turbidity (Hach)	7.49 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105566			
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	14 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	42 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105567			
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	82 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105568			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105569			
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105570	Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
3105571	TOC	3 mg/L	0.5	SM5310C
AA28050	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB19073	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	209.8 MPN/100mL	1	SM9223B

SiteID: WMI-04-0016 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19256
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	63.4 %	ASTM D888-09(C)
	DO	6.6 mg/L	ASTM D888-09(C)
	pH (Field)	7.44 SU	EPA 150.2
	Specific Conductance (Field)	705 umho/cm	SM2510B
	Temperature	13.47 °C	SM2550B(2)
	Turbidity (Hach)	3.86 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	8 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130514	Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
	Chloride	27 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	390 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	47 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130515	Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
	Calcium (Total)	92 mg/L	0.1	EPA 200.7
	Magnesium (Total)	31 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130516	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130517	Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.2
3130518	Phosphorus, Total	< 0.05 mg/L	0.05	SM4500P-E
3130519	TOC	2.8 mg/L	0.5	SM5310C
AA31627	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.45 mg/L	0.3	SM4500N(Org)-B
AB19256	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	61.3 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-04-0017 **USGS Hydrologic Unit:** 051201030402
Stream Name: Mississinewa River **County:** Delaware
Description: CR 371 E **Latitude:** 40 19 7.85842 **Longitude:** -85 19 10.26693
Drainage: 310.689 **Site Number:** 14T-125

SiteID: WMI-04-0017 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16181
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	88.8 %	ASTM D888-09(C)
	DO	10.11 mg/L	ASTM D888-09(C)
	pH (Field)	8.16 SU	EPA 150.2
	Specific Conductance (Field)	608 umho/cm	SM2510B
	Temperature	9.5 °C	SM2550B(2)
	Turbidity (Hach)	38.3 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID # 3011020	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	240 mg/L	1 SM2320B
	Chloride	22 mg/L	6 EPA 300.0
	Fluoride	0.2 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	30 mg/L	10 SM2540D
	Solids, Total (TS)	390 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	350 mg/L	10 SM2540C
	Sulfate	31 mg/L	15 EPA 300.0

Lab ID # 3011021	Result	Reporting Limit	Method
	Hardness (as CaCO3)	320 mg/L	0.66 SM2340B
	Calcium (Total)	79 mg/L	0.1 EPA 200.7
	Magnesium (Total)	30 mg/L	0.1 EPA 200.7

Lab ID # 3011022	Result	Reporting Limit	Method
	Nitrogen, Ammonia	0.1 mg/L	0.1 SM4500NH3-D

Lab ID # 3011023	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	5.5 mg/L	0.1 EPA 353.2

Lab ID # 3011024	Result	Reporting Limit	Method
	Phosphorus, Total	0.27 mg/L	0.05 SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011025	TOC	3.8 mg/L	0.5	SM5310C
AA14518	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB16181	Coliforms (Total)	1299.7 MPN/100mL	1	SM9223B
	E. coli	99 MPN/100mL	1	SM9223B

SiteID: WMI-04-0017 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16425
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	99.4 %		ASTM D888-09(C)
	DO	10.06 mg/L		ASTM D888-09(C)
	pH (Field)	8.3 SU		EPA 150.2
	Specific Conductance (Field)	656 umho/cm		SM2510B
	Temperature	14.75 °C		SM2550B(2)
	Turbidity (Hach)	14.9 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16425	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	59.4 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0017 Sample Date: 04/29/2014 IDEM Sample #: AB16497
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	90.6 %		ASTM D888-09(C)
DO	9.33 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	587 umho/cm		SM2510B
Temperature	13.96 °C		SM2550B(2)
Turbidity (Hach)	85.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16497			
E. coli	1046.2 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16497a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0017 Sample Date: 05/06/2014 IDEM Sample #: AB16816
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	116.6 %		ASTM D888-09(C)
DO	12.1 mg/L		ASTM D888-09(C)
pH (Field)	8.34 SU		EPA 150.2
Specific Conductance (Field)	642 umho/cm		SM2510B
Temperature	13.78 °C		SM2550B(2)
Turbidity (Hach)	10 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16816			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	46.4 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0017 **Sample Date:** 05/13/2014 **IDEM Sample #:** AB16949
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	82.3 %	ASTM D888-09(C)
	DO	7.28 mg/L	ASTM D888-09(C)
	pH (Field)	7.96 SU	EPA 150.2
	Specific Conductance (Field)	631 umho/cm	SM2510B
	Temperature	21.31 °C	SM2550B(2)
	Turbidity (Hach)	35.4 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3027095	Alkalinity (as CaCO3)	240 mg/L	1 SM2320B
	Chloride	29 mg/L	6 EPA 300.0
	Solids, Suspended Total, (TSS)	27 mg/L	10 SM2540D
	Solids, Total (TS)	370 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	350 mg/L	10 SM2540C
	Sulfate	41 mg/L	15 EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3027096	Hardness (as CaCO3)	310 mg/L	0.66 SM2340B
	Calcium (Total)	71 mg/L	0.1 EPA 200.7
	Magnesium (Total)	31 mg/L	0.1 EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3027097	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3027098	Nitrogen, Nitrate+Nitrite	3.1 mg/L	0.1 EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3027099	Phosphorus, Total	0.2 mg/L	0.05 SM4500P-E

Lab ID #	Result	Reporting Limit	Method
3027100	TOC	5 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17824			
COD	14 mg/L	10	EPA 410.4
TKN	1.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16949			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0017 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17397
Water Flow Type Riffle **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	79.8 %		ASTM D888-09(C)
DO	7.57 mg/L		ASTM D888-09(C)
pH (Field)	7.57 SU		EPA 150.2
Specific Conductance (Field)	510 umho/cm		SM2510B
Temperature	17.76 °C		SM2550B(2)
Turbidity (Hach)	166 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042533			
Alkalinity (as CaCO3)	160 mg/L	1	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	100 mg/L	10	SM2540D
Solids, Total (TS)	500 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042534			
Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
Calcium (Total)	61 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042535			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042536			
Nitrogen, Nitrate+Nitrite	12 mg/L	1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3042537	Phosphorus, Total	0.74 mg/L	0.05	SM4500P-E
3042538	TOC	6.6 mg/L	0.5	SM5310C
AA20557	COD	20 mg/L	10	EPA 410.4
	TKN	0.49 mg/L	0.3	SM4500N(Org)-B
AB17397	E. coli	727 MPN/100mL	1	SM9223B
AB17397a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0017 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17571
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	98.8 %		ASTM D888-09(C)
	DO	8.8 mg/L		ASTM D888-09(C)
	pH (Field)	8.22 SU		EPA 150.2
	Specific Conductance (Field)	599 umho/cm		SM2510B
	Temperature	20.99 °C		SM2550B(2)
	Turbidity (Hach)	114 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3060101	Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
	Chloride	29 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	31 mg/L	10	SM2540D
	Solids, Total (TS)	360 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
	Sulfate	37 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060102	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	300 mg/L 70 mg/L 29 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060103	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060104	Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.2
3060105	Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E
3060163	TOC	3.9 mg/L	0.5	SM5310C
AA22941	COD TKN	7 mg/L 0.43 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17571a	Coliforms (Total) E. coli	> 24196 MPN/100mL 6131 MPN/100mL	24196 10	SM9223B SM9223B

SiteID: WMI-04-0017 **Sample Date:** 08/12/2014 **IDEM Sample #:** AB18379
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	73.4 %	SM4500-OG
	DO	6.19 mg/L	SM4500-OG
	pH (Field)	8.22 SU	EPA 150.2
	Specific Conductance (Field)	684 umho/cm	SM2510B
	Temperature	22.64 °C	SM2550B(2)
	Turbidity (Hach)	21.8 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	5 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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Surface Water Results Summary**

SiteID: WMI-04-0017 Sample Date: 08/19/2014 IDEM Sample #: AB18759
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	85.4 %		ASTM D888-09(C)
DO	7.56 mg/L		ASTM D888-09(C)
pH (Field)	8.06 SU		EPA 150.2
Specific Conductance (Field)	798 umho/cm		SM2510B
Temperature	21.27 °C		SM2550B(2)
Turbidity (Hach)	17.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087183	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	48 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	17 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	49 mg/L	25	EPA 300.0

Lab ID # 3087184	Result	Reporting Limit	Method
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	33 mg/L	0.1	EPA 200.7

Lab ID # 3087185	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087186	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2

Lab ID # 3087187	Result	Reporting Limit	Method
Phosphorus, Total	0.16 mg/L	0.05	SM4500P-E

Lab ID # 3087188	Result	Reporting Limit	Method
TOC	4.5 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25804			
COD	16 mg/L	10	EPA 410.4
TKN	0.82 mg/L	0.3	SM4500N(Org)-B
AB18759			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	137.6 MPN/100mL	1	SM9223B

SiteID: WMI-04-0017 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19074
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	85.3 %		ASTM D888-09(C)
DO	8.61 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	619 umho/cm		SM2510B
Temperature	14.91 °C		SM2550B(2)
Turbidity (Hach)	19.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105574			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	28 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	34 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105575			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105576			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105577			
Nitrogen, Nitrate+Nitrite	2 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3105578	Phosphorus, Total 0.26 mg/L	0.05	SM4500P-E
3105579	TOC 4.9 mg/L	0.5	SM5310C
AA28051	COD 11 mg/L	10	EPA 410.4
	TKN 0.41 mg/L	0.3	SM4500N(Org)-B
AB19074	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 488.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0017 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19257
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 66.3 %		ASTM D888-09(C)
	DO 6.87 mg/L		ASTM D888-09(C)
	pH (Field) 7.59 SU		EPA 150.2
	Specific Conductance (Field) 790 umho/cm		SM2510B
	Temperature 13.93 °C		SM2550B(2)
	Turbidity (Hach) 6.04 NTU		EPA 180.1
	Air Temp 3 Lookup		Observation
	Sky Conditions 8 Lookup		Observation
	Wind Direction 18 Lookup		Observation
	Wind Strength 1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130522	Alkalinity (as CaCO3) 300 mg/L	1	SM2320B
	Chloride 48 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 460 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 440 mg/L	10	SM2540C
	Sulfate 48 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3130523	Hardness (as CaCO3) 360 mg/L	0.66	SM2340B
	Calcium (Total) 87 mg/L	0.1	EPA 200.7
	Magnesium (Total) 34 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130524	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130525	Nitrogen, Nitrate+Nitrite 1.1 mg/L	0.1	EPA 353.2
3130526	Phosphorus, Total 0.18 mg/L	0.05	SM4500P-E
3130527	TOC 4.8 mg/L	0.5	SM5310C
AA31628	COD 8 mg/L	10	EPA 410.4
	TKN 0.49 mg/L	0.3	SM4500N(Org)-B
AB19257	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 48.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-04-0019 **USGS Hydrologic Unit:** 051201030404
Stream Name: Mississinewa River **County:** Delaware
Description: Romy Street **Latitude:** 40 20 18.34946 **Longitude:** -85 21 17.07164
Drainage: 334.545 **Site Number:** 14T-126

SiteID: WMI-04-0019 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16182
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: FLOW NOT TAKEN DUE TO FLOODING

Lab ID #	Result	Reporting Limit	Method
	% Sat	91.8 %	ASTM D888-09(C)
	DO	10.42 mg/L	ASTM D888-09(C)
	pH (Field)	8.14 SU	EPA 150.2
	Specific Conductance (Field)	598 umho/cm	SM2510B
	Temperature	9.5 °C	SM2550B(2)
	Turbidity (Hach)	39.1 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3011028	Alkalinity (as CaCO3)	230 mg/L	1 SM2320B
	Chloride	23 mg/L	6 EPA 300.0
	Fluoride	0.2 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	31 mg/L	10 SM2540D
	Solids, Total (TS)	400 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10 SM2540C
	Sulfate	31 mg/L	15 EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3011029	Hardness (as CaCO3)	310 mg/L	0.66 SM2340B
	Calcium (Total)	77 mg/L	0.1 EPA 200.7
	Magnesium (Total)	29 mg/L	0.1 EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3011030	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3011031	Nitrogen, Nitrate+Nitrite	5.1 mg/L	0.1 EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3011032	Phosphorus, Total	0.27 mg/L	0.05 SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011033	TOC	3.8 mg/L	0.5	SM5310C
AA14519	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.41 mg/L	0.3	SM4500N(Org)-B
AB16182	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	125.9 MPN/100mL	1	SM9223B

SiteID: WMI-04-0019 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16426
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	105.4 %		ASTM D888-09(C)
	DO	10.62 mg/L		ASTM D888-09(C)
	pH (Field)	8.38 SU		EPA 150.2
	Specific Conductance (Field)	655 umho/cm		SM2510B
	Temperature	14.99 °C		SM2550B(2)
	Turbidity (Hach)	15.6 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16426	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	50.4 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0019 Sample Date: 04/29/2014 IDEM Sample #: AB16498
 Water Flow Type Riffle Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	97.4 %		ASTM D888-09(C)
DO	9.96 mg/L		ASTM D888-09(C)
pH (Field)	8.26 SU		EPA 150.2
Specific Conductance (Field)	600 umho/cm		SM2510B
Temperature	14.24 °C		SM2550B(2)
Turbidity (Hach)	56.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16498			
E. coli	770.1 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16498a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0019 Sample Date: 05/06/2014 IDEM Sample #: AB16817
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	117.9 %		ASTM D888-09(C)
DO	12.2 mg/L		ASTM D888-09(C)
pH (Field)	8.37 SU		EPA 150.2
Specific Conductance (Field)	640 umho/cm		SM2510B
Temperature	13.72 °C		SM2550B(2)
Turbidity (Hach)	10.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16817			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	64.4 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0019

Sample Date: 05/13/2014

IDEM Sample #: AB16950

Water Flow Type Run

Water Appearance Murky

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	91.7 %		ASTM D888-09(C)
DO	8.03 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	645 umho/cm		SM2510B
Temperature	21.84 °C		SM2550B(2)
Turbidity (Hach)	18.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID # 3027103	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	31 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	25 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	42 mg/L	15	EPA 300.0
Lab ID # 3027104	Result	Reporting Limit	Method
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	73 mg/L	0.1	EPA 200.7
Magnesium (Total)	32 mg/L	0.1	EPA 200.7
Lab ID # 3027105	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3027106	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.4 mg/L	0.1	EPA 353.2
Lab ID # 3027107	Result	Reporting Limit	Method
Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E
Lab ID # 3027108	Result	Reporting Limit	Method
TOC	4.5 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17825			
COD	14 mg/L	10	EPA 410.4
TKN	1.2 mg/L	0.3	SM4500N(Org)-B
AB16950			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: WMI-04-0019 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17398
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	84 %		ASTM D888-09(C)
DO	7.95 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	496 umho/cm		SM2510B
Temperature	17.92 °C		SM2550B(2)
Turbidity (Hach)	187 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042541			
Alkalinity (as CaCO3)	150 mg/L	1	SM2320B
Chloride	17 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	100 mg/L	10	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042542			
Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
Calcium (Total)	61 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042543			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042544			
Nitrogen, Nitrate+Nitrite	12 mg/L	1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3042545	Phosphorus, Total	0.48 mg/L	0.05	SM4500P-E
3042546	TOC	6.8 mg/L	0.5	SM5310C
AA20558	COD	22 mg/L	10	EPA 410.4
	TKN	1 mg/L	0.3	SM4500N(Org)-B
AB17398	E. coli	1299.7 MPN/100mL	1	SM9223B
AB17398a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0019 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17572
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	109 %		ASTM D888-09(C)
	DO	9.62 mg/L		ASTM D888-09(C)
	pH (Field)	8.29 SU		EPA 150.2
	Specific Conductance (Field)	607 umho/cm		SM2510B
	Temperature	21.36 °C		SM2550B(2)
	Turbidity (Hach)	21.6 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3060108	Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
	Chloride	27 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	11 mg/L	10	SM2540D
	Solids, Total (TS)	380 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
	Sulfate	35 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060109	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	290 mg/L 70 mg/L 30 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060110	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060111	Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.2
3060112	Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E
3060113	TOC	4 mg/L	0.5	SM5310C
AA22942	COD TKN	14 mg/L 0.35 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17572	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 1553.1 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-04-0019 **Sample Date:** 08/12/2014 **IDEM Sample #:** AB18367
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	90 %	SM4500-OG
	DO	7.51 mg/L	SM4500-OG
	pH (Field)	8.36 SU	EPA 150.2
	Specific Conductance (Field)	655 umho/cm	SM2510B
	Temperature	22.79 °C	SM2550B(2)
	Turbidity (Hach)	46.7 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	3 Lookup	Observation

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SiteID: WMI-04-0019 Sample Date: 08/19/2014 IDEM Sample #: AB18760
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	126.1 %		ASTM D888-09(C)
DO	11.06 mg/L		ASTM D888-09(C)
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	735 umho/cm		SM2510B
Temperature	21.84 °C		SM2550B(2)
Turbidity (Hach)	22.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	16.5179 cf/sec		FM D5089-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087200	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	46 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	25 mg/L	10	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	49 mg/L	25	EPA 300.0

Lab ID # 3087201	Result	Reporting Limit	Method
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	62 mg/L	0.1	EPA 200.7
Magnesium (Total)	33 mg/L	0.1	EPA 200.7

Lab ID # 3087202	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.3 mg/L	0.1	SM4500NH3-D

Lab ID # 3087203	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

Lab ID # 3087204	Result	Reporting Limit	Method
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E

Lab ID # 3087205	Result	Reporting Limit	Method
TOC	5.3 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25806			
COD	17 mg/L	10	EPA 410.4
TKN	1.3 mg/L	0.3	SM4500N(Org)-B
AB18760			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	83.3 MPN/100mL	1	SM9223B

SiteID: WMI-04-0019 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19075
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.1 %		ASTM D888-09(C)
DO	8.98 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	620 umho/cm		SM2510B
Temperature	14.95 °C		SM2550B(2)
Turbidity (Hach)	15.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	51.5022 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105582			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	24 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	11 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	31 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105583			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	72 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105584			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #	Result	Reporting Limit	Method
3105585	Nitrogen, Nitrate+Nitrite 1.8 mg/L	0.1	EPA 353.2
3105586	Phosphorus, Total 0.23 mg/L	0.05	SM4500P-E
3105587	TOC 4.7 mg/L	0.5	SM5310C
AA28052	COD < 10 mg/L	10	EPA 410.4
	TKN 0.65 mg/L	0.3	SM4500N(Org)-B
AB19075	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 461.1 MPN/100mL	1	SM9223B

SiteID: WMI-04-0019 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19258
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 75.1 %		ASTM D888-09(C)
	DO 7.79 mg/L		ASTM D888-09(C)
	pH (Field) 7.65 SU		EPA 150.2
	Specific Conductance (Field) 778 umho/cm		SM2510B
	Temperature 13.57 °C		SM2550B(2)
	Turbidity (Hach) 7.37 NTU		EPA 180.1
	Air Temp 4 Lookup		Observation
	Flow 37.0852 cf/sec		FM D5389-95/D3858
	Sky Conditions 8 Lookup		Observation
	Wind Direction 27 Lookup		Observation
	Wind Strength 3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130530	Alkalinity (as CaCO3) 300 mg/L	1	SM2320B
	Chloride 44 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 470 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 420 mg/L	10	SM2540C
	Sulfate 46 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3130531	Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
	Calcium (Total)	85 mg/L	0.1	EPA 200.7
	Magnesium (Total)	32 mg/L	0.1	EPA 200.7
3130532	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130533	Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.2
3130534	Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
3130535	TOC	4.7 mg/L	0.5	SM5310C
AA31629	COD	7 mg/L	10	EPA 410.4
	TKN	0.47 mg/L	0.3	SM4500N(Org)-B
AB19258	Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
	E. coli	56.5 MPN/100mL	1	SM9223B

SiteID: WMI-04-0019 **Sample Date:** 11/19/2014 **IDEM Sample #:** AB19604
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	109.9 %	ASTM D888-09(C)
	DO	16.16 mg/L	ASTM D888-09(C)
	pH (Field)	8.29 SU	EPA 150.2
	Specific Conductance (Field)	850 umho/cm	SM2510B
	Temperature	-0.27 °C	SM2550B(2)
	Turbidity (Hach)	2.58 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Flow	35.6266 cf/sec	TM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method
3142777			
Alkalinity (as CaCO3)	330 mg/L	1	SM2320B
Chloride	47 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	510 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	470 mg/L	10	SM2540C
Sulfate	45 mg/L	25	EPA 300.0
3142778			
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	90 mg/L	0.1	EPA 200.7
Magnesium (Total)	37 mg/L	0.1	EPA 200.7
3142779			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3142780			
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2
3142781			
Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
3142782			
TOC	3.5 mg/L	0.5	SM5310C
50107929004			
COD	20.9 mg/L	10	EPA 410.4
TKN	0.59 mg/L	0.5	EPA 351.2
AB19604			
Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
E. coli	78 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0019 Sample Date: 12/15/2014 IDEM Sample #: AB19851
 Water Flow Type Riffle Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	101.5 %		ASTM D888-09(C)
DO	12.99 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	745 umho/cm		SM2510B
Temperature	4.8 °C		SM2550B(2)
Turbidity (Hach)	5.87 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	118.2922 cf/sec		ASTM D3858-95
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3156167	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	32 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	41 mg/L	25	EPA 300.0

Lab ID # 3156168	Result	Reporting Limit	Method
Hardness (as CaCO3)	370 mg/L	0.66	SM2340B
Calcium (Total)	93 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7

Lab ID # 3156169	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3156170	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	3.4 mg/L	0.1	EPA 353.2

Lab ID # 3156171	Result	Reporting Limit	Method
Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E

Lab ID # 3156172	Result	Reporting Limit	Method
TOC	2.9 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
50109606006			
COD	< 10 mg/L	10	EPA 410.4
TKN	< 0.5 mg/L	0.5	EPA 351.2

SiteID: WMI-04-0019 **Sample Date:** 01/20/2015 **IDEM Sample #:** AB20322
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	87.4 %		ASTM D888-09(C)
DO	12.98 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	384 umho/cm		SM2510B
Temperature	-0.58 °C		SM2550B(2)
Turbidity (Hach)	35.6 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3173790			
Alkalinity (as CaCO3)	140 mg/L	1	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	17 mg/L	10	SM2540D
Solids, Total (TS)	230 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3173791			
Hardness (as CaCO3)	160 mg/L	0.66	SM2340B
Calcium (Total)	42 mg/L	0.1	EPA 200.7
Magnesium (Total)	16 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3173792			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3173793			
Nitrogen, Nitrate+Nitrite	2.2 mg/L	0.1	EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3173794			
Phosphorus, Total	0.41 mg/L	0.05	SM4500P-E

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Lab ID #	Result	Reporting Limit	Method	
3173795	TOC	6.7 mg/L	0.5	SM5310C
50111361006	COD	19.3 mg/L	10	EPA 410.4
	TKN	0.94 mg/L	0.5	EPA 351.2

SiteID: WMI-04-0019 **Sample Date:** 03/17/2015 **IDEM Sample #:** AB20795
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	92.9 %	ASTM D888-09(C)
	DO	11.39 mg/L	ASTM D888-09(C)
	pH (Field)	7.83 SU	EPA 150.2
	Specific Conductance (Field)	517 umho/cm	SM2510B
	Temperature	6.64 °C	SM2550B(2)
	Turbidity (Hach)	35.5 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3208974	Alkalinity (as CaCO3)	190 mg/L	1	SM2320B
	Chloride	23 mg/L	6	EPA 300.0
	Solids, Suspended Total, (TSS)	24 mg/L	10	SM2540D
	Solids, Total (TS)	340 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
	Sulfate	28 mg/L	15	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3208975	Hardness (as CaCO3)	260 mg/L	0.66	SM2340B
	Calcium (Total)	64 mg/L	0.1	EPA 200.7
	Magnesium (Total)	23 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method	
3208976	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method	
3208977	Nitrogen, Nitrate+Nitrite	5 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3208978	Phosphorus, Total	0.3 mg/L	0.05	SM4500P-E
3208979	TOC	5.2 mg/L	0.5	SM5310C
50114905007	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.87 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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Surface Water Results Summary**

SiteID: WMI-04-0009 **USGS Hydrologic Unit:** 051201030404
Stream Name: Dodge Creek **County:** Delaware
Description: Eaton-Wheeling Pike **Latitude:** 40 20 59.12624 **Longitude:** -85 24 58.56710
Drainage: 1.716 **Site Number:** 14T-128

SiteID: WMI-04-0009 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16183
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	120.6 %	ASTM D888-09(C)
	DO	14.79 mg/L	ASTM D888-09(C)
	pH (Field)	8.32 SU	EPA 150.2
	Specific Conductance (Field)	537 umho/cm	SM2510B
	Temperature	6.64 °C	SM2550B(2)
	Turbidity (Hach)	17.4 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011036	Alkalinity (as CaCO3)	210 mg/L	1 SM2320B
	Chloride	29 mg/L	6 EPA 300.0
	Fluoride	0.1 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	14 mg/L	10 SM2540D
	Solids, Total (TS)	320 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	300 mg/L	10 SM2540C
	Sulfate	15 mg/L	15 EPA 300.0

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011037	Hardness (as CaCO3)	260 mg/L	0.66 SM2340B
	Calcium (Total)	65 mg/L	0.1 EPA 200.7
	Magnesium (Total)	23 mg/L	0.1 EPA 200.7

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011038	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011039	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1 EPA 353.2

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011040	Phosphorus, Total	0.14 mg/L	0.05 SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3011041	TOC	5.7 mg/L	0.5	SM5310C
AA14520	COD	5 mg/L	10	EPA 410.4
	TKN	0.47 mg/L	0.3	SM4500N(Org)-B
AB16183	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	770.1 MPN/100mL	1	SM9223B

SiteID: WMI-04-0009 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16427
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	124.4 %		ASTM D888-09(C)
	DO	12.52 mg/L		ASTM D888-09(C)
	pH (Field)	8.23 SU		EPA 150.2
	Specific Conductance (Field)	620 umho/cm		SM2510B
	Temperature	15.13 °C		SM2550B(2)
	Turbidity (Hach)	4.46 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
AB16427	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	2419.6 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0009 Sample Date: 04/29/2014 IDEM Sample #: AB16499
 Water Flow Type: Glide Water Appearance: Brown Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	102.1 %		ASTM D888-09(C)
DO	10.2 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	456 umho/cm		SM2510B
Temperature	15.35 °C		SM2550B(2)
Turbidity (Hach)	76.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	4 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16499			
E. coli	1732.9 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16499a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0009 Sample Date: 05/06/2014 IDEM Sample #: AB16818
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	137.2 %		ASTM D888-09(C)
DO	14.25 mg/L		ASTM D888-09(C)
pH (Field)	8.13 SU		EPA 150.2
Specific Conductance (Field)	596 umho/cm		SM2510B
Temperature	13.49 °C		SM2550B(2)
Turbidity (Hach)	5.37 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16818			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	816.4 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0009 **Sample Date:** 05/13/2014 **IDEM Sample #:** AB16951
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	139.2 %		ASTM D888-09(C)
DO	12.05 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	591 umho/cm		SM2510B
Temperature	22.44 °C		SM2550B(2)
Turbidity (Hach)	8.01 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3027111	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	27 mg/L	4	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	16 mg/L	10	EPA 300.0

Lab ID # 3027112	Result	Reporting Limit	Method
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID # 3027113	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3027114	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.7 mg/L	0.1	EPA 353.2

Lab ID # 3027115	Result	Reporting Limit	Method
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E

Lab ID # 3027116	Result	Reporting Limit	Method
TOC	5.9 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17826			
COD	12 mg/L	10	EPA 410.4
TKN	1.3 mg/L	0.3	SM4500N(Org)-B
AB16951			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

SiteID: WMI-04-0009 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17379
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	97.3 %		ASTM D888-09(C)
DO	9.35 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	563 umho/cm		SM2510B
Temperature	17.24 °C		SM2550B(2)
Turbidity (Hach)	18.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042549			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	20 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	12 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	12 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042550			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	73 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042551			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042552			
Nitrogen, Nitrate+Nitrite	6.3 mg/L	0.1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3042553	Phosphorus, Total	0.15 mg/L	0.05	SM4500P-E
3042554	TOC	3.6 mg/L	0.5	SM5310C
AA20559	COD	9 mg/L	10	EPA 410.4
	TKN	0.56 mg/L	0.3	SM4500N(Org)-B
AB17379	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	1203.3 MPN/100mL	1	SM9223B

SiteID: WMI-04-0009 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17553
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	101.1 %		ASTM D888-09(C)
	DO	9 mg/L		ASTM D888-09(C)
	pH (Field)	8.08 SU		EPA 150.2
	Specific Conductance (Field)	553 umho/cm		SM2510B
	Temperature	20.98 °C		SM2550B(2)
	Turbidity (Hach)	29.6 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
3060116	Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
	Chloride	16 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	21 mg/L	10	SM2540D
	Solids, Total (TS)	350 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
	Sulfate	21 mg/L	5	EPA 300.0
3060117	Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
	Calcium (Total)	72 mg/L	0.1	EPA 200.7
	Magnesium (Total)	27 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3060118	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060119	Nitrogen, Nitrate+Nitrite	2.4 mg/L	0.1	EPA 353.2
3060120	Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E
3060121	TOC	3.5 mg/L	0.5	SM5310C
AA22943	COD	6 mg/L	10	EPA 410.4
	TKN	0.38 mg/L	0.3	SM4500N(Org)-B
AB17553	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-04-0009 **Sample Date:** 07/15/2014 **IDEM Sample #:** AB18378
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	107.9 %		SM4500-OG
	DO	8.79 mg/L		SM4500-OG
	pH (Field)	8.27 SU		EPA 150.2
	Specific Conductance (Field)	475 umho/cm		SM2510B
	Temperature	24.32 °C		SM2550B(2)
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

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SiteID: WMI-04-0009 Sample Date: 08/19/2014 IDEM Sample #: AB18741
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	72.1 %		ASTM D888-09(C)
DO	6.42 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	518 umho/cm		SM2510B
Temperature	21.47 °C		SM2550B(2)
Turbidity (Hach)	6.63 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3087208	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	14 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	290 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
Sulfate	< 25 mg/L	25	EPA 300.0

Lab ID # 3087209	Result	Reporting Limit	Method
Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
Calcium (Total)	52 mg/L	0.1	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7

Lab ID # 3087210	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

Lab ID # 3087211	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.2

Lab ID # 3087212	Result	Reporting Limit	Method
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E

Lab ID # 3087213	Result	Reporting Limit	Method
TOC	5.5 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25807			
COD	19 mg/L	10	EPA 410.4
TKN	1.5 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18741			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	866.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0009 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19056
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	102.1 %		ASTM D888-09(C)
DO	10.39 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	650 umho/cm		SM2510B
Temperature	14.68 °C		SM2550B(2)
Turbidity (Hach)	9.54 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105590			
Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
Chloride	23 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105591			
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105592			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105593			
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105594	Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
3105595	TOC	4.4 mg/L	0.5	SM5310C
AA28053	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB19056	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	272.3 MPN/100mL	1	SM9223B

SiteID: WMI-04-0009 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19239
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	71.6 %	ASTM D888-09(C)
	DO	7.42 mg/L	ASTM D888-09(C)
	pH (Field)	7.47 SU	EPA 150.2
	Specific Conductance (Field)	682 umho/cm	SM2510B
	Temperature	13.77 °C	SM2550B(2)
	Turbidity (Hach)	8.14 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	8 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130538	Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
	Chloride	25 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	390 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	18 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130539	Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
	Calcium (Total)	87 mg/L	0.1	EPA 200.7
	Magnesium (Total)	30 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130540	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130541	Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.2
3130542	Phosphorus, Total	0.06 mg/L	0.05	SM4500P-E
3130543	TOC	4.1 mg/L	0.5	SM5310C
AA31630	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.47 mg/L	0.3	SM4500N(Org)-B
AB19239	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	488.4 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-04-0010 **USGS Hydrologic Unit:** 051201030403
Stream Name: Hedgeland Ditch **County:** Delaware
Description: CR 1070 N **Latitude:** 40 20 43.29423 **Longitude:** -85 27 50.81799
Drainage: 12.323 **Site Number:** 14T-129

SiteID: WMI-04-0010 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16184
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	123.6 %		ASTM D888-09(C)
DO	15.08 mg/L		ASTM D888-09(C)
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	592 umho/cm		SM2510B
Temperature	6.78 °C		SM2550B(2)
Turbidity (Hach)	5.99 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	9 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID # 3011044</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	23 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	22 mg/L	15	EPA 300.0

<u>Lab ID # 3011045</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	84 mg/L	0.1	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7

<u>Lab ID # 3011046</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

<u>Lab ID # 3011047</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Nitrate+Nitrite	3.8 mg/L	0.1	EPA 353.2

<u>Lab ID # 3011048</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011049	TOC	6.9 mg/L	0.5	SM5310C
AA14521				
	COD	7 mg/L	10	EPA 410.4
	TKN	0.87 mg/L	0.3	SM4500N(Org)-B
AB16184				
	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	129.6 MPN/100mL	1	SM9223B

SiteID: WMI-04-0010 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16428
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Excessive Algae

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	133.1 %		ASTM D888-09(C)
	DO	14.22 mg/L		ASTM D888-09(C)
	pH (Field)	8.17 SU		EPA 150.2
	Specific Conductance (Field)	641 umho/cm		SM2510B
	Temperature	13.09 °C		SM2550B(2)
	Turbidity (Hach)	3.67 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	2 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16428				
	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	119.8 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0010 Sample Date: 04/29/2014 IDEM Sample #: AB16500
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	114.6 %		ASTM D888-09(C)
DO	11.93 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	601 umho/cm		SM2510B
Temperature	13.49 °C		SM2550B(2)
Turbidity (Hach)	25.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # AB16500	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	980.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0010 Sample Date: 05/06/2014 IDEM Sample #: AB16819
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	128.8 %		ASTM D888-09(C)
DO	13.96 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	684 umho/cm		SM2510B
Temperature	11.83 °C		SM2550B(2)
Turbidity (Hach)	3.52 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # AB16819	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	61.3 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0010 Sample Date: 05/13/2014 IDEM Sample #: AB16952
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	120.2 %		ASTM D888-09(C)
DO	10.96 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	682 umho/cm		SM2510B
Temperature	19.99 °C		SM2550B(2)
Turbidity (Hach)	3.8 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3027119	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	27 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	25 mg/L	15	EPA 300.0

Lab ID # 3027120	Result	Reporting Limit	Method
Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
Calcium (Total)	96 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7

Lab ID # 3027121	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3027122	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.2 mg/L	0.1	EPA 353.2

Lab ID # 3027123	Result	Reporting Limit	Method
Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E

Lab ID # 3027124	Result	Reporting Limit	Method
TOC	7.1 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17827			
COD	13 mg/L	10	EPA 410.4
TKN	1.2 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16952			
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	59.1 MPN/100mL	1	SM9223B

SiteID: WMI-04-0010 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17380
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	71.8 %		ASTM D888-09(C)
DO	6.95 mg/L		ASTM D888-09(C)
pH (Field)	7.32 SU		EPA 150.2
Specific Conductance (Field)	561 umho/cm		SM2510B
Temperature	16.89 °C		SM2550B(2)
Turbidity (Hach)	16.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042557			
Alkalinity (as CaCO3)	210 mg/L	1	SM2320B
Chloride	22 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	10 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042558			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	78 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042559			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042560			
Nitrogen, Nitrate+Nitrite	8.1 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042561	Phosphorus, Total	0.22 mg/L	0.05	SM4500P-E
3042562	TOC	7.2 mg/L	0.5	SM5310C
AA20560	COD	21 mg/L	10	EPA 410.4
	TKN	0.9 mg/L	0.3	SM4500N(Org)-B
AB17380	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	238.2 MPN/100mL	1	SM9223B

SiteID: WMI-04-0010 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17554
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	64 %	ASTM D888-09(C)
	DO	5.86 mg/L	ASTM D888-09(C)
	pH (Field)	7.66 SU	EPA 150.2
	Specific Conductance (Field)	708 umho/cm	SM2510B
	Temperature	19.69 °C	SM2550B(2)
	Turbidity (Hach)	13.2 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060140	Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
	Chloride	25 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	450 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
	Sulfate	21 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060141	Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
	Calcium (Total)	97 mg/L	0.1	EPA 200.7
	Magnesium (Total)	29 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3060142	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060144	Nitrogen, Nitrate+Nitrite	2.1 mg/L	0.1	EPA 353.2
3060145	Phosphorus, Total	0.21 mg/L	0.05	SM4500P-E
3060146	TOC	6.2 mg/L	0.5	SM5310C
AA22946	COD	14 mg/L	10	EPA 410.4
	TKN	0.64 mg/L	0.3	SM4500N(Org)-B
AB17554	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-04-0010 **Sample Date:** 08/13/2014 **IDEM Sample #:** AB18377
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	64.9 %		SM4500-OG
	DO	5.97 mg/L		SM4500-OG
	pH (Field)	8.01 SU		EPA 150.2
	Specific Conductance (Field)	747 umho/cm		SM2510B
	Temperature	18.13 °C		SM2550B(2)
	Turbidity (Hach)	3.12 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

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SiteID: WMI-04-0010 Sample Date: 08/19/2014 IDEM Sample #: AB18742
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	66.1 %		SM4500-OG
DO	6.01 mg/L		SM4500-OG
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	820 umho/cm		SM2510B
Temperature	20.06 °C		SM2550B(2)
Turbidity (Hach)	6.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087232	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	350 mg/L	1	SM2320B
Chloride	26 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
Sulfate	41 mg/L	25	EPA 300.0

Lab ID # 3087233	Result	Reporting Limit	Method
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	98 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7

Lab ID # 3087234	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087235	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.2

Lab ID # 3087236	Result	Reporting Limit	Method
Phosphorus, Total	0.3 mg/L	0.05	SM4500P-E

Lab ID # 3087237	Result	Reporting Limit	Method
TOC	4.7 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25810			
COD	15 mg/L	10	EPA 410.4
TKN	0.5 mg/L	0.3	SM4500N(Org)-B
AB18742			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	54.6 MPN/100mL	1	SM9223B

SiteID: WMI-04-0010 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19057
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	68 %		ASTM D888-09(C)
DO	7.1 mg/L		ASTM D888-09(C)
pH (Field)	7.7 SU		EPA 150.2
Specific Conductance (Field)	820 umho/cm		SM2510B
Temperature	13.7 °C		SM2550B(2)
Turbidity (Hach)	1.46 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105614			
Alkalinity (as CaCO3)	350 mg/L	1	SM2320B
Chloride	27 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
Sulfate	39 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105615			
Hardness (as CaCO3)	400 mg/L	0.66	SM2340B
Calcium (Total)	100 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105616			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105617			
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3105618	Phosphorus, Total	0.22 mg/L	0.05	SM4500P-E
3105619	TOC	5.4 mg/L	0.5	SM5310C
AA28056	COD	8 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB19057	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	235.9 MPN/100mL	1	SM9223B

SiteID: WMI-04-0010 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19240
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	61.6 %		ASTM D888-09(C)
	DO	6.46 mg/L		ASTM D888-09(C)
	pH (Field)	7.55 SU		EPA 150.2
	Specific Conductance (Field)	805 umho/cm		SM2510B
	Temperature	13.29 °C		SM2550B(2)
	Turbidity (Hach)	3.19 NTU		EPA 180.1
	Air Temp	3 Lookup		Observation
	Sky Conditions	4 Lookup		Observation
	Wind Direction	22 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3130576	Alkalinity (as CaCO3)	370 mg/L	1	SM2320B
	Chloride	30 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	480 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	470 mg/L	10	SM2540C
	Sulfate	26 mg/L	25	EPA 300.0

Lab ID #		Result	Reporting Limit	Method
3130577	Hardness (as CaCO3)	420 mg/L	0.66	SM2340B
	Calcium (Total)	110 mg/L	0.1	EPA 200.7
	Magnesium (Total)	33 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130578	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130579	Nitrogen, Nitrate+Nitrite 0.6 mg/L	0.1	EPA 353.2
3130580	Phosphorus, Total 0.11 mg/L	0.05	SM4500P-E
3130581	TOC 6.7 mg/L	0.5	SM5310C
AA31633	COD 15 mg/L	10	EPA 410.4
	TKN 0.53 mg/L	0.3	SM4500N(Org)-B
AB19240	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 129.1 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-04-0011 **USGS Hydrologic Unit:** 051201030403
Stream Name: Pike Creek **County:** Delaware
Description: Eaton-Wheeling Pike **Latitude:** 40 21 47.35793 **Longitude:** -85 27 25.75107
Drainage: 21.311 **Site Number:** 14T-130

SiteID: WMI-04-0011 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16185
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: FLOW - 25.1287 cfs

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	110.6 %		ASTM D888-09(C)
DO	13.26 mg/L		ASTM D888-09(C)
pH (Field)	8.15 SU		EPA 150.2
Specific Conductance (Field)	594 umho/cm		SM2510B
Temperature	7.42 °C		SM2550B(2)
Turbidity (Hach)	15.4 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	25.1287 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

<u>Lab ID #</u> 3011052	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	21 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	11 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	30 mg/L	15	EPA 300.0

<u>Lab ID #</u> 3011053	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	83 mg/L	0.1	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7

<u>Lab ID #</u> 3011054	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

<u>Lab ID #</u> 3011055	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Nitrate+Nitrite	4.4 mg/L	0.1	EPA 353.2

<u>Lab ID #</u> 3011056	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011057	TOC	3.9 mg/L	0.5	SM5310C
AA14522	COD	12 mg/L	10	EPA 410.4
	TKN	0.66 mg/L	0.3	SM4500N(Org)-B
AB16185	Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
	E. coli	228.2 MPN/100mL	1	SM9223B

SiteID: WMI-04-0011 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16429
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	134 %		ASTM D888-09(C)
	DO	13.95 mg/L		ASTM D888-09(C)
	pH (Field)	8.36 SU		EPA 150.2
	Specific Conductance (Field)	602 umho/cm		SM2510B
	Temperature	13.84 °C		SM2550B(2)
	Turbidity (Hach)	11.3 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation
AB16429	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	686.7 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0011 Sample Date: 04/29/2014 IDEM Sample #: AB16501
 Water Flow Type Riffle Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	111.2 %		ASTM D888-09(C)
DO	11.6 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	611 umho/cm		SM2510B
Temperature	13.5 °C		SM2550B(2)
Turbidity (Hach)	36.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16501			
E. coli	648.8 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16501a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0011 Sample Date: 05/06/2014 IDEM Sample #: AB16820
 Water Flow Type Riffle Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	126.9 %		ASTM D888-09(C)
DO	13.65 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	626 umho/cm		SM2510B
Temperature	12.2 °C		SM2550B(2)
Turbidity (Hach)	5.56 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16820			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0011 **Sample Date:** 05/13/2014 **IDEM Sample #:** AB16953
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	104.4 %		ASTM D888-09(C)
DO	9.5 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	644 umho/cm		SM2510B
Temperature	19.81 °C		SM2550B(2)
Turbidity (Hach)	7.48 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	11.7993 cf/sec		TM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3027127	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
Chloride	25 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
Sulfate	38 mg/L	15	EPA 300.0

Lab ID # 3027130	Result	Reporting Limit	Method
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	86 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID # 3027131	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3027134	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.2

Lab ID # 3027137	Result	Reporting Limit	Method
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E

Lab ID # 3027140	Result	Reporting Limit	Method
TOC	5 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17828			
COD	14 mg/L	10	EPA 410.4
TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB16953			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0011 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17381
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	88.1 %		ASTM D888-09(C)
DO	8.57 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	577 umho/cm		SM2510B
Temperature	16.64 °C		SM2550B(2)
Turbidity (Hach)	24.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	59.7762 cf/sec		TM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042565			
Alkalinity (as CaCO3)	210 mg/L	1	SM2320B
Chloride	20 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	20 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042566			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	23 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042567			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042568	Nitrogen, Nitrate+Nitrite	9.1 mg/L	0.1	EPA 353.2
3042569	Phosphorus, Total	0.28 mg/L	0.05	SM4500P-E
3042570	TOC	5 mg/L	0.5	SM5310C
AA20561	COD	22 mg/L	10	EPA 410.4
	TKN	0.93 mg/L	0.3	SM4500N(Org)-B
AB17381	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	325.5 MPN/100mL	1	SM9223B

SiteID: WMI-04-0011 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17555
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	91.5 %		ASTM D888-09(C)
	DO	8.4 mg/L		ASTM D888-09(C)
	pH (Field)	7.95 SU		EPA 150.2
	Specific Conductance (Field)	659 umho/cm		SM2510B
	Temperature	19.47 °C		SM2550B(2)
	Turbidity (Hach)	24.4 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Flow	8.3047 cf/sec		FM D5389-95/D3858
	Sky Conditions	3 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	3 Lookup		Observation
3060132	Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
	Chloride	22 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	16 mg/L	10	SM2540D
	Solids, Total (TS)	460 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
	Sulfate	37 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060133	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	340 mg/L 89 mg/L 28 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060134	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060135	Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.2
3060136	Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E
3060137	TOC	5.5 mg/L	0.5	SM5310C
AA22945	COD TKN	6 mg/L 0.4 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17555	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 866.4 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-04-0011 **Sample Date:** 08/11/2014 **IDEM Sample #:** AB18376
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	89.5 %	SM4500-OG
	DO	7.52 mg/L	SM4500-OG
	pH (Field)	8.13 SU	EPA 150.2
	Specific Conductance (Field)	680 umho/cm	SM2510B
	Temperature	22.47 °C	SM2550B(2)
	Turbidity (Hach)	6.3 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

**Indiana Department of Environmental Management
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SiteID: WMI-04-0011 Sample Date: 08/19/2014 IDEM Sample #: AB18743
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	95 %		ASTM D888-09(C)
DO	8.63 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	737 umho/cm		SM2510B
Temperature	19.97 °C		SM2550B(2)
Turbidity (Hach)	6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	1.6944 cf/sec		FM D5089-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087224	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	21 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	56 mg/L	25	EPA 300.0

Lab ID # 3087225	Result	Reporting Limit	Method
Hardness (as CaCO3)	350 mg/L	0.66	SM2340B
Calcium (Total)	90 mg/L	0.1	EPA 200.7
Magnesium (Total)	31 mg/L	0.1	EPA 200.7

Lab ID # 3087226	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087227	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.2

Lab ID # 3087228	Result	Reporting Limit	Method
Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E

Lab ID # 3087229	Result	Reporting Limit	Method
TOC	2.7 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25809			
COD	12 mg/L	10	EPA 410.4
TKN	0.35 mg/L	0.3	SM4500N(Org)-B
AB18743			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	260.3 MPN/100mL	1	SM9223B

SiteID: WMI-04-0011 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19058
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	93.9 %		ASTM D888-09(C)
DO	9.61 mg/L		ASTM D888-09(C)
pH (Field)	6.93 SU		EPA 150.2
Specific Conductance (Field)	701 umho/cm		SM2510B
Temperature	14.22 °C		SM2550B(2)
Turbidity (Hach)	5.99 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	9.8763 cf/sec		TM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105606			
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	24 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	39 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105607			
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	88 mg/L	0.1	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105608			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3105609	Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	EPA 353.2
3105610	Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E
3105611	TOC	5 mg/L	0.5	SM5310C
AA28055	COD	8 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB19058	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: WMI-04-0011 **Sample Date:** 10/28/2014 **IDEM Sample #:** AB19241
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	87.6 %		ASTM D888-09(C)
	DO	9.06 mg/L		ASTM D888-09(C)
	pH (Field)	7.67 SU		EPA 150.2
	Specific Conductance (Field)	719 umho/cm		SM2510B
	Temperature	13.61 °C		SM2550B(2)
	Turbidity (Hach)	4.88 NTU		EPA 180.1
	Air Temp	3 Lookup		Observation
	Flow	5.6422 cf/sec		FM D5389-95/D3858
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3130568	Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
	Chloride	32 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	440 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
	Sulfate	56 mg/L	25	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3130569	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	370 mg/L 95 mg/L 32 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3130570	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130571	Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.2
3130572	Phosphorus, Total	< 0.05 mg/L	0.05	SM4500P-E
3130573	TOC	3.8 mg/L	0.5	SM5310C
AA31632	COD TKN	< 10 mg/L 0.4 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB19241	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 344.8 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-04-0011 **Sample Date:** 11/19/2014 **IDEM Sample #:** AB19611
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	109.6 %	ASTM D888-09(C)
	DO	15.75 mg/L	ASTM D888-09(C)
	pH (Field)	8.05 SU	EPA 150.2
	Specific Conductance (Field)	783 umho/cm	SM2510B
	Temperature	0.058 °C	SM2550B(2)
	Turbidity (Hach)	2.93 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Flow	3.2505 cf/sec	TM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method
3142785			
Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
Chloride	26 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	49 mg/L	25	EPA 300.0
3142786			
Hardness (as CaCO3)	390 mg/L	0.66	SM2340B
Calcium (Total)	100 mg/L	0.1	EPA 200.7
Magnesium (Total)	34 mg/L	0.1	EPA 200.7
3142787			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3142788			
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2
3142789			
Phosphorus, Total	0.05 mg/L	0.05	SM4500P-E
3142790			
TOC	2.6 mg/L	0.5	SM5310C
50107929005			
COD	11.8 mg/L	10	EPA 410.4
TKN	< 0.5 mg/L	0.5	EPA 351.2
AB19611			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0011 Sample Date: 12/16/2014 IDEM Sample #: AB19846
 Water Flow Type Riffle Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	91.3 %		ASTM D888-09(C)
DO	11.1 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	719 umho/cm		SM2510B
Temperature	6.81 °C		SM2550B(2)
Turbidity (Hach)	7.69 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	12.8375 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3156213	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	310 mg/L	1	SM2320B
Chloride	28 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	41 mg/L	25	EPA 300.0

Lab ID # 3156214	Result	Reporting Limit	Method
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	100 mg/L	0.1	EPA 200.7
Magnesium (Total)	31 mg/L	0.1	EPA 200.7

Lab ID # 3156215	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3156216	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.2

Lab ID # 3156217	Result	Reporting Limit	Method
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E

Lab ID # 3156218	Result	Reporting Limit	Method
TOC	3.7 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
50109606012			
COD	10 mg/L	10	EPA 410.4
TKN	< 0.5 mg/L	0.5	EPA 351.2

SiteID: WMI-04-0011 **Sample Date:** 01/20/2015 **IDEM Sample #:** AB20317
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	99 %		ASTM D888-09(C)
DO	12.92 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	560 umho/cm		SM2510B
Temperature	4.11 °C		SM2550B(2)
Turbidity (Hach)	18.4 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	28.1965 cf/sec		TM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3173844			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	21 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	10 mg/L	10	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3173845			
Hardness (as CaCO3)	270 mg/L	0.66	SM2340B
Calcium (Total)	72 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3173846			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3173847			
Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3173848			
Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E

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Lab ID #	Result	Reporting Limit	Method	
3173849	TOC	4.3 mg/L	0.5	SM5310C
50111361011	COD	< 10 mg/L	10	EPA 410.4
	TKN	< 0.5 mg/L	0.5	EPA 351.2

SiteID: WMI-04-0011 **Sample Date:** 03/17/2015 **IDEM Sample #:** AB20790
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	94.4 %	ASTM D888-09(C)
	DO	11.72 mg/L	ASTM D888-09(C)
	pH (Field)	7.89 SU	EPA 150.2
	Specific Conductance (Field)	550 umho/cm	SM2510B
	Temperature	6.02 °C	SM2550B(2)
	Turbidity (Hach)	20.5 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Flow	44.2911 cf/sec	TM D5389-95/D3858
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3209012	Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
	Chloride	23 mg/L	6	EPA 300.0
	Solids, Suspended Total, (TSS)	16 mg/L	10	SM2540D
	Solids, Total (TS)	360 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
	Sulfate	24 mg/L	15	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3209013	Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
	Calcium (Total)	74 mg/L	0.1	EPA 200.7
	Magnesium (Total)	23 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method	
3209014	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method	
3209015	Nitrogen, Nitrate+Nitrite	3.3 mg/L	0.1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3209016	Phosphorus, Total	0.26 mg/L	0.05	SM4500P-E
3209017	TOC	4.5 mg/L	0.5	SM5310C
50114905012	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.62 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-04-0012 **USGS Hydrologic Unit:** 051201030404
Stream Name: Mississinewa River **County:** Delaware
Description: CR 364 W **Latitude:** 40 22 20.85967 **Longitude:** -85 27 23.16790
Drainage: 424.403 **Site Number:** 14T-131

SiteID: WMI-04-0012 **Sample Date:** 04/15/2014 **IDEM Sample #:** AB16186
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: FLOW - 471.66 cfs

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	95.5 %		ASTM D888-09(C)
DO	10.77 mg/L		ASTM D888-09(C)
pH (Field)	8.25 SU		EPA 150.2
Specific Conductance (Field)	605 umho/cm		SM2510B
Temperature	9.94 °C		SM2550B(2)
Turbidity (Hach)	38 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	471.66 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #</u> 3011060	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	26 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	30 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	33 mg/L	15	EPA 300.0

<u>Lab ID #</u> 3011061	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	79 mg/L	0.1	EPA 200.7
Magnesium (Total)	29 mg/L	0.1	EPA 200.7

<u>Lab ID #</u> 3011062	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

<u>Lab ID #</u> 3011063	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Nitrogen, Nitrate+Nitrite	4.6 mg/L	0.1	EPA 353.2

<u>Lab ID #</u> 3011064	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Phosphorus, Total	0.26 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011065	TOC	4.3 mg/L	0.5	SM5310C
AA14523	COD	17 mg/L	10	EPA 410.4
	TKN	0.64 mg/L	0.3	SM4500N(Org)-B
AB16186	Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
	E. coli	172.3 MPN/100mL	1	SM9223B

SiteID: WMI-04-0012 **Sample Date:** 04/22/2014 **IDEM Sample #:** AB16430
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	119 %		ASTM D888-09(C)
	DO	11.95 mg/L		ASTM D888-09(C)
	pH (Field)	8.41 SU		EPA 150.2
	Specific Conductance (Field)	661 umho/cm		SM2510B
	Temperature	15.17 °C		SM2550B(2)
	Turbidity (Hach)	12.5 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation
AB16430	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	115.3 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0012 Sample Date: 04/29/2014 IDEM Sample #: AB16502
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	94.3 %		ASTM D888-09(C)
DO	9.58 mg/L		ASTM D888-09(C)
pH (Field)	8.12 SU		EPA 150.2
Specific Conductance (Field)	522 umho/cm		SM2510B
Temperature	14.61 °C		SM2550B(2)
Turbidity (Hach)	120 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	4 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16502			
E. coli	1986.3 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16502a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0012 Sample Date: 05/06/2014 IDEM Sample #: AB16821
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	134.4 %		ASTM D888-09(C)
DO	13.88 mg/L		ASTM D888-09(C)
pH (Field)	8.38 SU		EPA 150.2
Specific Conductance (Field)	649 umho/cm		SM2510B
Temperature	13.85 °C		SM2550B(2)
Turbidity (Hach)	8.27 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16821			
Coliforms (Total)	1413.6 MPN/100mL	1	SM9223B
E. coli	224.7 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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SiteID: WMI-04-0012 **Sample Date:** 05/13/2014 **IDEM Sample #:** AB16954
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	109.5 %	ASTM D888-09(C)
	DO	9.53 mg/L	ASTM D888-09(C)
	pH (Field)	8.16 SU	EPA 150.2
	Specific Conductance (Field)	631 umho/cm	SM2510B
	Temperature	22.58 °C	SM2550B(2)
	Turbidity (Hach)	14.7 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Flow	362.33 cf/sec	TM D5389-95/D3858
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID # 3027149	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	240 mg/L	1 SM2320B
	Chloride	31 mg/L	6 EPA 300.0
	Solids, Suspended Total, (TSS)	19 mg/L	10 SM2540D
	Solids, Total (TS)	380 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10 SM2540C
	Sulfate	42 mg/L	15 EPA 300.0

Lab ID # 3027150	Result	Reporting Limit	Method
	Hardness (as CaCO3)	310 mg/L	0.66 SM2340B
	Calcium (Total)	71 mg/L	0.1 EPA 200.7
	Magnesium (Total)	30 mg/L	0.1 EPA 200.7

Lab ID # 3027151	Result	Reporting Limit	Method
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID # 3027152	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1 EPA 353.2

Lab ID # 3027153	Result	Reporting Limit	Method
	Phosphorus, Total	0.17 mg/L	0.05 SM4500P-E

Lab ID # 3027154	Result	Reporting Limit	Method
	TOC	5.3 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17829			
COD	18 mg/L	10	EPA 410.4
TKN	0.98 mg/L	0.3	SM4500N(Org)-B
AB16954			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

SiteID: WMI-04-0012 **Sample Date:** 06/10/2014 **IDEM Sample #:** AB17382
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	88.5 %		ASTM D888-09(C)
DO	8.21 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	476 umho/cm		SM2510B
Temperature	18.87 °C		SM2550B(2)
Turbidity (Hach)	184 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	774.79 cf/sec		TM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042573			
Alkalinity (as CaCO3)	150 mg/L	1	SM2320B
Chloride	19 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	95 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042574			
Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
Calcium (Total)	59 mg/L	0.1	EPA 200.7
Magnesium (Total)	20 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042575			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042576	Nitrogen, Nitrate+Nitrite	11 mg/L	1	EPA 353.2
3042577	Phosphorus, Total	0.63 mg/L	0.05	SM4500P-E
3042578	TOC	7.1 mg/L	0.5	SM5310C
AA20562	COD	30 mg/L	10	EPA 410.4
	TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB17382	E. coli	1119.9 MPN/100mL	1	SM9223B
AB17382a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-04-0012 **Sample Date:** 07/08/2014 **IDEM Sample #:** AB17556
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	128.1 %		ASTM D888-09(C)
DO	11.21 mg/L		ASTM D888-09(C)
pH (Field)	8.32 SU		EPA 150.2
Specific Conductance (Field)	645 umho/cm		SM2510B
Temperature	21.88 °C		SM2550B(2)
Turbidity (Hach)	9.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	117.65 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	4 Lookup		Observation

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Lab ID #	Result	Reporting Limit	Method
3060124			
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	35 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	43 mg/L	5	EPA 300.0
3060125			
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	67 mg/L	0.1	EPA 200.7
Magnesium (Total)	30 mg/L	0.1	EPA 200.7
3060126			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060127			
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2
3060128			
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
3060129			
TOC	5.3 mg/L	0.5	SM5310C
AA22944			
COD	11 mg/L	10	EPA 410.4
TKN	0.49 mg/L	0.3	SM4500N(Org)-B
AB17556			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	290.9 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0012 Sample Date: 08/13/2014 IDEM Sample #: AB18375
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	63.5 %		SM4500-OG
DO	5.68 mg/L		SM4500-OG
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	782 umho/cm		SM2510B
Temperature	19.24 °C		SM2550B(2)
Turbidity (Hach)	20.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WMI-04-0012 Sample Date: 08/19/2014 IDEM Sample #: AB18744
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	95.6 %		ASTM D888-09(C)
DO	8.4 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	868 umho/cm		SM2510B
Temperature	21.66 °C		SM2550B(2)
Turbidity (Hach)	21.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	21.9789 cf/sec		TM D5089-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087216	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	71 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	22 mg/L	10	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	64 mg/L	25	EPA 300.0

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3087217	Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
	Calcium (Total)	66 mg/L	0.1	EPA 200.7
	Magnesium (Total)	34 mg/L	0.1	EPA 200.7
3087218	Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D
3087219	Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.2
3087220	Phosphorus, Total	0.28 mg/L	0.05	SM4500P-E
3087221	TOC	6.4 mg/L	0.5	SM5310C
AA25808	COD	17 mg/L	10	EPA 410.4
	TKN	0.8 mg/L	0.3	SM4500N(Org)-B
AB18744	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	133.4 MPN/100mL	1	SM9223B

SiteID: WMI-04-0012 **Sample Date:** 09/16/2014 **IDEM Sample #:** AB19059
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	90 %		ASTM D888-09(C)
	DO	9.07 mg/L		ASTM D888-09(C)
	pH (Field)	7.96 SU		EPA 150.2
	Specific Conductance (Field)	636 umho/cm		SM2510B
	Temperature	14.93 °C		SM2550B(2)
	Turbidity (Hach)	14.2 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Flow	99.2714 cf/sec		TM D5389-95/D3858
	Sky Conditions	3 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

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Lab ID #	Result	Reporting Limit	Method
3105598			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	32 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	39 mg/L	25	EPA 300.0
3105599			
Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
Calcium (Total)	71 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7
3105600			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3105601			
Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	EPA 353.2
3105602			
Phosphorus, Total	0.23 mg/L	0.05	SM4500P-E
3105603			
TOC	5.1 mg/L	0.5	SM5310C
AA28054			
COD	13 mg/L	10	EPA 410.4
TKN	0.41 mg/L	0.3	SM4500N(Org)-B
AB19059			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1732.9 MPN/100mL	1	SM9223B

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SiteID: WMI-04-0012 Sample Date: 10/28/2014 IDEM Sample #: AB19242
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	75.9 %		ASTM D888-09(C)
DO	7.85 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	792 umho/cm		SM2510B
Temperature	13.67 °C		SM2550B(2)
Turbidity (Hach)	4.32 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	56.8081 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3130546	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
Chloride	53 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	49 mg/L	25	EPA 300.0

Lab ID # 3130549	Result	Reporting Limit	Method
Hardness (as CaCO3)	350 mg/L	0.66	SM2340B
Calcium (Total)	87 mg/L	0.1	EPA 200.7
Magnesium (Total)	32 mg/L	0.1	EPA 200.7

Lab ID # 3130550	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3130553	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.2

Lab ID # 3130556	Result	Reporting Limit	Method
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E

Lab ID # 3130559	Result	Reporting Limit	Method
TOC	5.5 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA31631			
COD	8 mg/L	10	EPA 410.4
TKN	0.56 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB19242			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	52 MPN/100mL	1	SM9223B

SiteID: WMI-04-0012 **Sample Date:** 11/19/2014 **IDEM Sample #:** AB19609
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	113.2 %		ASTM D888-09(C)
DO	16.51 mg/L		ASTM D888-09(C)
pH (Field)	8.21 SU		EPA 150.2
Specific Conductance (Field)	857 umho/cm		SM2510B
Temperature	-0.08 °C		SM2550B(2)
Turbidity (Hach)	3.12 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3142821			
Alkalinity (as CaCO3)	320 mg/L	1	SM2320B
Chloride	49 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	510 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
Sulfate	48 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3142822			
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	91 mg/L	0.1	EPA 200.7
Magnesium (Total)	36 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3142823			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3142824			
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3142825	Phosphorus, Total	0.06 mg/L	0.05	SM4500P-E
3142826	TOC	4.1 mg/L	0.5	SM5310C
50107929008	COD	16.2 mg/L	10	EPA 410.4
	TKN	< 0.5 mg/L	0.5	EPA 351.2
AB19609	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	193.5 MPN/100mL	1	SM9223B

SiteID: WMI-04-0012 **Sample Date:** 12/15/2014 **IDEM Sample #:** AB19854
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	99.8 %		ASTM D888-09(C)
	DO	12.47 mg/L		ASTM D888-09(C)
	pH (Field)	8.1 SU		EPA 150.2
	Specific Conductance (Field)	755 umho/cm		SM2510B
	Temperature	5.76 °C		SM2550B(2)
	Turbidity (Hach)	6.78 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Flow	153.34 cf/sec		FM D5389-95/D3858
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3156189	Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
	Chloride	36 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	12 mg/L	10	SM2540D
	Solids, Total (TS)	460 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
	Sulfate	42 mg/L	25	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3156190	Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
	Calcium (Total)	94 mg/L	0.1	EPA 200.7
	Magnesium (Total)	33 mg/L	0.1	EPA 200.7
Lab ID #	Result	Reporting Limit	Method	
3156191	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID #	Result	Reporting Limit	Method	
3156192	Nitrogen, Nitrate+Nitrite	3 mg/L	0.1	EPA 353.2
Lab ID #	Result	Reporting Limit	Method	
3156193	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
Lab ID #	Result	Reporting Limit	Method	
3156194	TOC	3.8 mg/L	0.5	SM5310C
Lab ID #	Result	Reporting Limit	Method	
50109606009	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.59 mg/L	0.5	EPA 351.2

SiteID: WMI-04-0012 **Sample Date:** 01/20/2015 **IDEM Sample #:** AB20325
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	88.4 %	ASTM D888-09(C)
	DO	13.03 mg/L	ASTM D888-09(C)
	pH (Field)	7.8 SU	EPA 150.2
	Specific Conductance (Field)	366 umho/cm	SM2510B
	Temperature	-0.32 °C	SM2550B(2)
	Turbidity (Hach)	43.7 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method	
3173836	Alkalinity (as CaCO3)	130 mg/L	1	SM2320B
	Chloride	19 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	22 mg/L	10	10	SM2540D
Solids, Total (TS)	240 mg/L	10	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	10	SM2540C
Sulfate	17 mg/L	5	5	EPA 300.0
Lab ID #	Result	Reporting Limit	Method	
3173837	Hardness (as CaCO3)	160 mg/L	0.66	SM2340B
	Calcium (Total)	40 mg/L	0.1	EPA 200.7
	Magnesium (Total)	14 mg/L	0.1	EPA 200.7
Lab ID #	Result	Reporting Limit	Method	
3173838	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D
Lab ID #	Result	Reporting Limit	Method	
3173839	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	EPA 353.2
Lab ID #	Result	Reporting Limit	Method	
3173840	Phosphorus, Total	0.42 mg/L	0.05	SM4500P-E
Lab ID #	Result	Reporting Limit	Method	
3173841	TOC	7 mg/L	0.5	SM5310C
Lab ID #	Result	Reporting Limit	Method	
50111361010	COD	17.8 mg/L	10	EPA 410.4
	TKN	0.74 mg/L	0.5	EPA 351.2

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SiteID: WMI-04-0012 Sample Date: 03/17/2015 IDEM Sample #: AB20798
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	93.2 %		ASTM D888-09(C)
DO	11.36 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	268 umho/cm		SM2510B
Temperature	6.8 °C		SM2550B(2)
Turbidity (Hach)	36.5 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	841.5 cf/sec		FM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3209004	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
Chloride	23 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	27 mg/L	10	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 mg/L	10	SM2540C
Sulfate	26 mg/L	15	EPA 300.0

Lab ID # 3209005	Result	Reporting Limit	Method
Hardness (as CaCO3)	250 mg/L	0.66	SM2340B
Calcium (Total)	64 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID # 3209006	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3209007	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	4.4 mg/L	0.1	EPA 353.2

Lab ID # 3209008	Result	Reporting Limit	Method
Phosphorus, Total	0.33 mg/L	0.05	SM4500P-E

Lab ID # 3209009	Result	Reporting Limit	Method
TOC	5.4 mg/L	0.5	SM5310C

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Lab ID # 50114905011

Result

Reporting Limit

Method

	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.81 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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SiteID: WMI-03-0009 **USGS Hydrologic Unit:** 051201030302
Stream Name: Big Lick Creek **County:** Delaware
Description: CR 1275 N **Latitude:** 40 22 37.62475 **Longitude:** -85 26 52.32484
Drainage: 76.171 **Site Number:** 14T-132

SiteID: WMI-03-0009 **Sample Date:** 04/16/2014 **IDEM Sample #:** AB16187
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: FLOW - 49.2288 cfs

Lab ID #	Result	Reporting Limit	Method
% Sat	84.1 %		ASTM D888-09(C)
DO	10.86 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	624 umho/cm		SM2510B
Temperature	4.42 °C		SM2550B(2)
Turbidity (Hach)	23.5 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Flow	49.2288 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3011068	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	32 mg/L	6	EPA 300.0
Fluoride	< 0.1 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	16 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	43 mg/L	15	EPA 300.0

Lab ID # 3011069	Result	Reporting Limit	Method
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID # 3011070	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3011071	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.2 mg/L	0.1	EPA 353.2

Lab ID # 3011072	Result	Reporting Limit	Method
Phosphorus, Total	0.24 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011073	TOC	6.3 mg/L	0.5	SM5310C
AA14524	COD	20 mg/L	10	EPA 410.4
	TKN	0.87 mg/L	0.3	SM4500N(Org)-B
AB16187	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: WMI-03-0009 **Sample Date:** 04/23/2014 **IDEM Sample #:** AB16431
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	74.8 %		ASTM D888-09(C)
	DO	8.42 mg/L		ASTM D888-09(C)
	pH (Field)	7.71 SU		EPA 150.2
	Specific Conductance (Field)	765 umho/cm		SM2510B
	Temperature	9.3 °C		SM2550B(2)
	Turbidity (Hach)	7.03 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation
AB16431	Coliforms (Total)	1553.1 MPN/100mL	1	SM9223B
	E. coli	148.3 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0009 Sample Date: 04/30/2014 IDEM Sample #: AB16503
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	73.4 %		ASTM D888-09(C)
DO	7.78 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	508 umho/cm		SM2510B
Temperature	12.67 °C		SM2550B(2)
Turbidity (Hach)	80.7 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	9208 MPN/100mL	10	SM9223B

SiteID: WMI-03-0009 Sample Date: 05/07/2014 IDEM Sample #: AB16822
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	62.8 %		ASTM D888-09(C)
DO	6.59 mg/L		ASTM D888-09(C)
pH (Field)	7.43 SU		EPA 150.2
Specific Conductance (Field)	809 umho/cm		SM2510B
Temperature	13.04 °C		SM2550B(2)
Turbidity (Hach)	5.29 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	162.4 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-03-0009 Sample Date: 05/14/2014 IDEM Sample #: AB16955
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	69.2 %		ASTM D888-09(C)
DO	6.71 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	460 umho/cm		SM2510B
Temperature	16.77 °C		SM2550B(2)
Turbidity (Hach)	282 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3027157	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	1	SM2320B
Chloride	30 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	160 mg/L	10	SM2540D
Solids, Total (TS)	500 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	31 mg/L	15	EPA 300.0

Lab ID # 3027158	Result	Reporting Limit	Method
Hardness (as CaCO3)	210 mg/L	0.66	SM2340B
Calcium (Total)	56 mg/L	0.1	EPA 200.7
Magnesium (Total)	17 mg/L	0.1	EPA 200.7

Lab ID # 3027159	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.5 mg/L	0.1	SM4500NH3-D

Lab ID # 3027160	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	4.7 mg/L	0.1	EPA 353.2

Lab ID # 3027161	Result	Reporting Limit	Method
Phosphorus, Total	0.98 mg/L	0.25	SM4500P-E

Lab ID # 3027162	Result	Reporting Limit	Method
TOC	13 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17830			
COD	46 mg/L	10	EPA 410.4
TKN	3 mg/L	0.3	SM4500N(Org)-B
AB16955a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	17329 MPN/100mL	10	SM9223B

SiteID: WMI-03-0009 **Sample Date:** 06/11/2014 **IDEM Sample #:** AB17383
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	75.5 %		ASTM D888-09(C)
DO	7.12 mg/L		ASTM D888-09(C)
pH (Field)	7.57 SU		EPA 150.2
Specific Conductance (Field)	556 umho/cm		SM2510B
Temperature	18.11 °C		SM2550B(2)
Turbidity (Hach)	50.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	76.3146 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042581			
Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
Chloride	27 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	40 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	35 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042582			
Hardness (as CaCO3)	250 mg/L	0.66	SM2340B
Calcium (Total)	68 mg/L	0.1	EPA 200.7
Magnesium (Total)	19 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042583			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042584	Nitrogen, Nitrate+Nitrite	5.9 mg/L	0.1	EPA 353.2
3042585	Phosphorus, Total	0.34 mg/L	0.05	SM4500P-E
3042586	TOC	7.4 mg/L	0.5	SM5310C
AA20563	COD	30 mg/L	10	EPA 410.4
	TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB17383a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
	E. coli	9208 MPN/100mL	10	SM9223B

SiteID: WMI-03-0009 **Sample Date:** 07/09/2014 **IDEM Sample #:** AB17557
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	61.7 %		ASTM D888-09(C)
	DO	4.71 mg/L		ASTM D888-09(C)
	pH (Field)	7.78 SU		EPA 150.2
	Specific Conductance (Field)	907 umho/cm		SM2510B
	Temperature	19.78 °C		SM2550B(2)
	Turbidity (Hach)	8.42 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	0 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3060149	Alkalinity (as CaCO3)	260 mg/L	1	SM2320B
	Chloride	82 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	580 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	500 mg/L	10	SM2540C
	Sulfate	93 mg/L	5	EPA 300.0

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3060150	Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
	Calcium (Total)	84 mg/L	0.1	EPA 200.7
	Magnesium (Total)	32 mg/L	0.1	EPA 200.7
3060151	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060152	Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.2
3060153	Phosphorus, Total	0.16 mg/L	0.05	SM4500P-E
3060154	TOC	6.1 mg/L	0.5	SM5310C
AA22947	COD	11 mg/L	10	EPA 410.4
	TKN	0.49 mg/L	0.3	SM4500N(Org)-B
AB17557	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: WMI-03-0009 **Sample Date:** 08/13/2014 **IDEM Sample #:** AB18374
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	87.7 %		SM4500-OG
	DO	8.03 mg/L		SM4500-OG
	pH (Field)	8.18 SU		EPA 150.2
	Specific Conductance (Field)	1234 umho/cm		SM2510B
	Temperature	18.09 °C		SM2550B(2)
	Turbidity (Hach)	5.44 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	0 Lookup		Observation
	Wind Strength	0 Lookup		Observation

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SiteID: WMI-03-0009 Sample Date: 08/20/2014 IDEM Sample #: AB18745
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	39.8 %		ASTM D888-09(C)
DO	3.48 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	1394 umho/cm		SM2510B
Temperature	20.82 °C		SM2550B(2)
Turbidity (Hach)	3.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	4.274 cf/sec		FM D5089-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087240	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	170 mg/L	20	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	780 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	750 mg/L	10	SM2540C
Sulfate	130 mg/L	25	EPA 300.0

Lab ID # 3087243	Result	Reporting Limit	Method
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	80 mg/L	0.1	EPA 200.7
Magnesium (Total)	35 mg/L	0.1	EPA 200.7

Lab ID # 3087244	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087247	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.2

Lab ID # 3087250	Result	Reporting Limit	Method
Phosphorus, Total	0.36 mg/L	0.05	SM4500P-E

Lab ID # 3087253	Result	Reporting Limit	Method
TOC	8.2 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25811			
COD	28 mg/L	10	EPA 410.4
TKN	0.96 mg/L	0.3	SM4500N(Org)-B
AB18745			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	166.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0009 **Sample Date:** 09/17/2014 **IDEM Sample #:** AB19060
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	76.5 %		ASTM D888-09(C)
DO	8.03 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	848 umho/cm		SM2510B
Temperature	12.72 °C		SM2550B(2)
Turbidity (Hach)	8.67 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	16.796 cf/sec		TM D5389-95/D3858
Sky Conditions	6 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105628			
Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
Chloride	66 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
Sulfate	68 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105629			
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	82 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105630			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #	Result	Reporting Limit	Method	
3105631	Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.2
3105632	Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E
3105633	TOC	7.2 mg/L	0.5	SM5310C
AA28058	COD	19 mg/L	10	EPA 410.4
	TKN	0.62 mg/L	0.3	SM4500N(Org)-B
AB19060	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: WMI-03-0009 **Sample Date:** 10/29/2014 **IDEM Sample #:** AB19243
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method	
	% Sat	66.5 %	ASTM D888-09(C)	
	DO	7.43 mg/L	ASTM D888-09(C)	
	pH (Field)	7.72 SU	EPA 150.2	
	Specific Conductance (Field)	991 umho/cm	SM2510B	
	Temperature	10.27 °C	SM2550B(2)	
	Turbidity (Hach)	5.13 NTU	EPA 180.1	
	Air Temp	3 Lookup	Observation	
	Flow	22.6191 cf/sec	FM D5389-95/D3858	
	Sky Conditions	1 Lookup	Observation	
	Wind Direction	27 Lookup	Observation	
	Wind Strength	1 Lookup	Observation	
3130584	Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
	Chloride	100 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	570 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	560 mg/L	10	SM2540C
	Sulfate	85 mg/L	25	EPA 300.0

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Lab ID #		Result	Reporting Limit	Method
3130585	Hardness (as CaCO3)	350 mg/L	0.66	SM2340B
	Calcium (Total)	90 mg/L	0.1	EPA 200.7
	Magnesium (Total)	30 mg/L	0.1	EPA 200.7
3130586	Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D
3130587	Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.2
3130588	Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E
3130589	TOC	9 mg/L	0.5	SM5310C
AA31634	COD	24 mg/L	10	EPA 410.4
	TKN	1.2 mg/L	0.3	SM4500N(Org)-B
AB19243	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-03-0009 **Sample Date:** 12/16/2014 **IDEM Sample #:** AB19853
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	63 %		ASTM D888-09(C)
	DO	7.75 mg/L		ASTM D888-09(C)
	pH (Field)	7.84 SU		EPA 150.2
	Specific Conductance (Field)	805 umho/cm		SM2510B
	Temperature	6.32 °C		SM2550B(2)
	Turbidity (Hach)	22.5 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Flow	36.5129 cf/sec		TM D5389-95/D3858
	Sky Conditions	4 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

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Lab ID #	Result	Reporting Limit	Method	
3156205	Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
	Chloride	52 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	17 mg/L	10	SM2540D
	Solids, Total (TS)	500 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
	Sulfate	58 mg/L	25	EPA 300.0
3156206	Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
	Calcium (Total)	92 mg/L	0.1	EPA 200.7
	Magnesium (Total)	28 mg/L	0.1	EPA 200.7
3156207	Nitrogen, Ammonia	0.6 mg/L	0.1	SM4500NH3-D
3156208	Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.2
3156209	Phosphorus, Total	0.27 mg/L	0.05	SM4500P-E
3156210	TOC	9.7 mg/L	0.5	SM5310C
50109606011	COD	25.6 mg/L	10	EPA 410.4
	TKN	1.6 mg/L	0.5	EPA 351.2

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SiteID: WMI-03-0009 Sample Date: 01/20/2015 IDEM Sample #: AB20324
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.1 %		ASTM D888-09(C)
DO	12.68 mg/L		ASTM D888-09(C)
pH (Field)	7.65 SU		EPA 150.2
Specific Conductance (Field)	390 umho/cm		SM2510B
Temperature	0.95 °C		SM2550B(2)
Turbidity (Hach)	50.1 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3173828	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	1	SM2320B
Chloride	28 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	34 mg/L	10	SM2540D
Solids, Total (TS)	230 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 300.0

Lab ID # 3173829	Result	Reporting Limit	Method
Hardness (as CaCO3)	160 mg/L	0.66	SM2340B
Calcium (Total)	42 mg/L	0.1	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7

Lab ID # 3173830	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3173831	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2

Lab ID # 3173832	Result	Reporting Limit	Method
Phosphorus, Total	0.31 mg/L	0.05	SM4500P-E

Lab ID # 3173833	Result	Reporting Limit	Method
TOC	8.4 mg/L	0.5	SM5310C

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Lab ID #		Result	Reporting Limit	Method
50111361009	COD	28.2 mg/L	10	EPA 410.4
	TKN	0.81 mg/L	0.5	EPA 351.2

SiteID: WMI-03-0009 **Sample Date:** 03/17/2015 **IDEM Sample #:** AB20797
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	91.3 %		ASTM D888-09(C)
	DO	11.24 mg/L		ASTM D888-09(C)
	pH (Field)	7.7 SU		EPA 150.2
	Specific Conductance (Field)	507 umho/cm		SM2510B
	Temperature	6.4 °C		SM2550B(2)
	Turbidity (Hach)	46.4 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Flow	72.274 cf/sec		TM D5389-95/D3858
	Sky Conditions	3 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3208988	Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
	Chloride	30 mg/L	6	EPA 300.0
	Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
	Solids, Total (TS)	320 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
	Sulfate	31 mg/L	15	EPA 300.0

Lab ID #		Result	Reporting Limit	Method
3208989	Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
	Calcium (Total)	63 mg/L	0.1	EPA 200.7
	Magnesium (Total)	18 mg/L	0.1	EPA 200.7

Lab ID #		Result	Reporting Limit	Method
3208990	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #		Result	Reporting Limit	Method
3208991	Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	EPA 353.2

Lab ID #		Result	Reporting Limit	Method
3208992	Phosphorus, Total	0.28 mg/L	0.05	SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3208993	TOC	6.7 mg/L	0.5	SM5310C
50114905009	COD	12.2 mg/L	10	EPA 410.4
	TKN	0.82 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-03-0005 **USGS Hydrologic Unit:** 051201030302
Stream Name: Townsend Lucas Ditch **County:** Blackford
Description: CR 300 S **Latitude:** 40 24 26.80611 **Longitude:** -85 25 15.24705
Drainage: 6.984 **Site Number:** 14T-134

SiteID: WMI-03-0005 **Sample Date:** 04/16/2014 **IDEM Sample #:** AB16188
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	93.2 %		ASTM D888-09(C)
DO	12.11 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	528 umho/cm		SM2510B
Temperature	4.31 °C		SM2550B(2)
Turbidity (Hach)	12.9 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3011101	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	200 mg/L	1	SM2320B
Chloride	19 mg/L	6	EPA 300.0
Fluoride	< 0.1 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	28 mg/L	15	EPA 300.0

Lab ID # 3011102	Result	Reporting Limit	Method
Hardness (as CaCO3)	260 mg/L	0.66	SM2340B
Calcium (Total)	70 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID # 3011103	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3011104	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	3.6 mg/L	0.1	EPA 353.2

Lab ID # 3011105	Result	Reporting Limit	Method
Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E

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Lab ID #		Result	Reporting Limit	Method
3011106	TOC	4.6 mg/L	0.5	SM5310C
AA14525	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.98 mg/L	0.3	SM4500N(Org)-B
AB16188	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	64.5 MPN/100mL	1	SM9223B

SiteID: WMI-03-0005 **Sample Date:** 04/23/2014 **IDEM Sample #:** AB16432
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	84 %		ASTM D888-09(C)
	DO	9.34 mg/L		ASTM D888-09(C)
	pH (Field)	8.09 SU		EPA 150.2
	Specific Conductance (Field)	585 umho/cm		SM2510B
	Temperature	10.42 °C		SM2550B(2)
	Turbidity (Hach)	6.11 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation
AB16432	Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
	E. coli	145 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0005 Sample Date: 04/30/2014 IDEM Sample #: AB16504
 Water Flow Type Riffle Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.1 %		ASTM D888-09(C)
DO	9.73 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	513 umho/cm		SM2510B
Temperature	11.32 °C		SM2550B(2)
Turbidity (Hach)	24.7 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: WMI-03-0005 Sample Date: 05/07/2014 IDEM Sample #: AB16823
 Water Flow Type Riffle Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	84.2 %		ASTM D888-09(C)
DO	8.82 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	557 umho/cm		SM2510B
Temperature	13.17 °C		SM2550B(2)
Turbidity (Hach)	5.55 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	165.8 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0005 Sample Date: 05/14/2014 IDEM Sample #: AB16956
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	83.2 %		ASTM D888-09(C)
DO	8.54 mg/L		ASTM D888-09(C)
pH (Field)	7.48 SU		EPA 150.2
Specific Conductance (Field)	473 umho/cm		SM2510B
Temperature	14.02 °C		SM2550B(2)
Turbidity (Hach)	141 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3027165	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	140 mg/L	1	SM2320B
Chloride	23 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	68 mg/L	10	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	27 mg/L	15	EPA 300.0

Lab ID # 3027166	Result	Reporting Limit	Method
Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
Calcium (Total)	65 mg/L	0.1	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7

Lab ID # 3027167	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.3 mg/L	0.1	SM4500NH3-D

Lab ID # 3027168	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	7.6 mg/L	0.1	EPA 353.2

Lab ID # 3027169	Result	Reporting Limit	Method
Phosphorus, Total	0.71 mg/L	0.05	SM4500P-E

Lab ID # 3027170	Result	Reporting Limit	Method
TOC	12 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17831			
COD	47 mg/L	10	EPA 410.4
TKN	2.3 mg/L	0.3	SM4500N(Org)-B
AB16956a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	3448 MPN/100mL	10	SM9223B

SiteID: WMI-03-0005 **Sample Date:** 06/11/2014 **IDEM Sample #:** AB17384
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.5 %		ASTM D888-09(C)
DO	8.4 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	482 umho/cm		SM2510B
Temperature	18.59 °C		SM2550B(2)
Turbidity (Hach)	35.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042589			
Alkalinity (as CaCO3)	190 mg/L	1	SM2320B
Chloride	15 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	21 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042590			
Hardness (as CaCO3)	260 mg/L	0.66	SM2340B
Calcium (Total)	74 mg/L	0.1	EPA 200.7
Magnesium (Total)	20 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042591			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042592			
Nitrogen, Nitrate+Nitrite	10 mg/L	1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042593	Phosphorus, Total	0.26 mg/L	0.05	SM4500P-E
3042594	TOC	7.2 mg/L	0.5	SM5310C
AA20564	COD	18 mg/L	10	EPA 410.4
	TKN	1.1 mg/L	0.3	SM4500N(Org)-B
AB17384	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	272.3 MPN/100mL	1	SM9223B

SiteID: WMI-03-0005 **Sample Date:** 07/09/2014 **IDEM Sample #:** AB17558
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	76.4 %	ASTM D888-09(C)
	DO	7.01 mg/L	ASTM D888-09(C)
	pH (Field)	8.05 SU	EPA 150.2
	Specific Conductance (Field)	624 umho/cm	SM2510B
	Temperature	19.58 °C	SM2550B(2)
	Turbidity (Hach)	12 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060200	Alkalinity (as CaCO3)	250 mg/L	1	SM2320B
	Chloride	27 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	370 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
	Sulfate	29 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060201	Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
	Calcium (Total)	79 mg/L	0.1	EPA 200.7
	Magnesium (Total)	26 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3060202	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3060203	Nitrogen, Nitrate+Nitrite 3.8 mg/L	0.1	EPA 353.2
3060204	Phosphorus, Total 0.12 mg/L	0.05	SM4500P-E
3060205	TOC 5.1 mg/L	0.5	SM5310C
AA22948	COD 6 mg/L TKN 0.41 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17558	Coliforms (Total) > 2419.6 MPN/100mL E. coli 488.4 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-03-0005 **Sample Date:** 08/11/2014 **IDEM Sample #:** AB18373
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Interstitial pools

Lab ID #	Result	Reporting Limit	Method
	% Sat 90 %		SM4500-OG
	DO 7.2 mg/L		SM4500-OG
	pH (Field) 8 SU		EPA 150.2
	Specific Conductance (Field) 528 umho/cm		SM2510B
	Temperature 25.01 °C		SM2550B(2)
	Turbidity (Hach) 17.9 NTU		EPA 180.1
	Air Temp 5 Lookup		Observation
	Sky Conditions 3 Lookup		Observation
	Wind Direction 27 Lookup		Observation
	Wind Strength 2 Lookup		Observation

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SiteID: WMI-03-0005 Sample Date: 08/20/2014 IDEM Sample #: AB18746
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Isolated Pool

Lab ID #	Result	Reporting Limit	Method
% Sat	43 %		ASTM D888-09(C)
DO	3.93 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	583 umho/cm		SM2510B
Temperature	19.7 °C		SM2550B(2)
Turbidity (Hach)	24.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087262	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	1	SM2320B
Chloride	25 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	19 mg/L	10	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
Sulfate	41 mg/L	25	EPA 300.0
Lab ID # 3087263	Result	Reporting Limit	Method
Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
Calcium (Total)	57 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7
Lab ID # 3087264	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087265	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
Lab ID # 3087266	Result	Reporting Limit	Method
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
Lab ID # 3087267	Result	Reporting Limit	Method
TOC	6.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25812			
COD	19 mg/L	10	EPA 410.4
TKN	0.83 mg/L	0.3	SM4500N(Org)-B
AB18746			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	16.9 MPN/100mL	1	SM9223B

SiteID: WMI-03-0005 **Sample Date:** 09/17/2014 **IDEM Sample #:** AB19061
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	88.6 %		ASTM D888-09(C)
DO	9.52 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	668 umho/cm		SM2510B
Temperature	12.18 °C		SM2550B(2)
Turbidity (Hach)	6.97 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	6 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105644			
Alkalinity (as CaCO3)	260 mg/L	1	SM2320B
Chloride	23 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
Sulfate	39 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105645			
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	90 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105646			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105647			
Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3105648	Phosphorus, Total 0.14 mg/L	0.05	SM4500P-E
3105649	TOC 7.2 mg/L	0.5	SM5310C
AA28060	COD 20 mg/L	10	EPA 410.4
	TKN 0.62 mg/L	0.3	SM4500N(Org)-B
AB19061	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 613.1 MPN/100mL	1	SM9223B

SiteID: WMI-03-0005 **Sample Date:** 10/29/2014 **IDEM Sample #:** AB19244
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 71.8 %		ASTM D888-09(C)
	DO 8.05 mg/L		ASTM D888-09(C)
	pH (Field) 7.69 SU		EPA 150.2
	Specific Conductance (Field) 638 umho/cm		SM2510B
	Temperature 10.44 °C		SM2550B(2)
	Turbidity (Hach) 2.9 NTU		EPA 180.1
	Air Temp 3 Lookup		Observation
	Sky Conditions 1 Lookup		Observation
	Wind Direction 27 Lookup		Observation
	Wind Strength 1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130592	Alkalinity (as CaCO3) 270 mg/L	1	SM2320B
	Chloride 22 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 370 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 360 mg/L	10	SM2540C
	Sulfate 30 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3130593	Hardness (as CaCO3) 320 mg/L	0.66	SM2340B
	Calcium (Total) 84 mg/L	0.1	EPA 200.7
	Magnesium (Total) 26 mg/L	0.1	EPA 200.7

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Lab ID #		Result	Reporting Limit	Method
3130594	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130595	Nitrogen, Nitrate+Nitrite	2.3 mg/L	0.1	EPA 353.2
3130596	Phosphorus, Total	< 0.05 mg/L	0.05	SM4500P-E
3130597	TOC	5.9 mg/L	0.5	SM5310C
AA31635	COD	10 mg/L	10	EPA 410.4
	TKN	0.58 mg/L	0.3	SM4500N(Org)-B
AB19244	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	218.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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SiteID: WMI-03-0010 **USGS Hydrologic Unit:** 051201030302
Stream Name: Little Joe Creek **County:** Blackford
Description: CR 300 S **Latitude:** 40 24 25.60028 **Longitude:** -85 23 35.97738
Drainage: 4.393 **Site Number:** 14T-135

SiteID: WMI-03-0010 **Sample Date:** 04/16/2014 **IDEM Sample #:** AB16190
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	97.9 %		ASTM D888-09(C)
DO	13.05 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	579 umho/cm		SM2510B
Temperature	3.34 °C		SM2550B(2)
Turbidity (Hach)	21.9 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011109			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	25 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	14 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	21 mg/L	15	EPA 300.0

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011110			
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	76 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011111			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011112			
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.2

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011113			
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011114	TOC	4.8 mg/L	0.5	SM5310C
AA14526	COD	20 mg/L	10	EPA 410.4
	TKN	0.78 mg/L	0.3	SM4500N(Org)-B
AB16190	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	235.9 MPN/100mL	1	SM9223B

SiteID: WMI-03-0010 **Sample Date:** 04/23/2014 **IDEM Sample #:** AB16434
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	87.2 %		ASTM D888-09(C)
	DO	10.24 mg/L		ASTM D888-09(C)
	pH (Field)	7.94 SU		EPA 150.2
	Specific Conductance (Field)	595 umho/cm		SM2510B
	Temperature	8.2 °C		SM2550B(2)
	Turbidity (Hach)	8.21 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation
AB16434	Coliforms (Total)	1413.6 MPN/100mL	1	SM9223B
	E. coli	115.3 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0010 Sample Date: 04/30/2014 IDEM Sample #: AB16506
 Water Flow Type Riffle Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	90.4 %		ASTM D888-09(C)
DO	10.1 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	572 umho/cm		SM2510B
Temperature	10.36 °C		SM2550B(2)
Turbidity (Hach)	26.1 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	222.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0010 Sample Date: 05/07/2014 IDEM Sample #: AB16825
 Water Flow Type Riffle Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	90.2 %		ASTM D888-09(C)
DO	9.71 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	619 umho/cm		SM2510B
Temperature	11.9 °C		SM2550B(2)
Turbidity (Hach)	7.25 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	142.1 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-03-0010 Sample Date: 05/14/2014 IDEM Sample #: AB16958
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	82.1 %		ASTM D888-09(C)
DO	8.45 mg/L		ASTM D888-09(C)
pH (Field)	7.42 SU		EPA 150.2
Specific Conductance (Field)	472 umho/cm		SM2510B
Temperature	14.03 °C		SM2550B(2)
Turbidity (Hach)	131 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3027173	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	1	SM2320B
Chloride	29 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	73 mg/L	10	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	16 mg/L	15	EPA 300.0

Lab ID # 3027174	Result	Reporting Limit	Method
Hardness (as CaCO3)	210 mg/L	0.66	SM2340B
Calcium (Total)	56 mg/L	0.1	EPA 200.7
Magnesium (Total)	16 mg/L	0.1	EPA 200.7

Lab ID # 3027175	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.7 mg/L	0.1	SM4500NH3-D

Lab ID # 3027176	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	9.8 mg/L	0.1	EPA 353.2

Lab ID # 3027177	Result	Reporting Limit	Method
Phosphorus, Total	0.6 mg/L	0.05	SM4500P-E

Lab ID # 3027178	Result	Reporting Limit	Method
TOC	13 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17832			
COD	38 mg/L	10	EPA 410.4
TKN	2.5 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16958a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	8664 MPN/100mL	10	SM9223B

SiteID: WMI-03-0010 **Sample Date:** 06/11/2014 **IDEM Sample #:** AB17385
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	87 %		ASTM D888-09(C)
DO	8.44 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	597 umho/cm		SM2510B
Temperature	16.7 °C		SM2550B(2)
Turbidity (Hach)	25.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042597			
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	26 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	15 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042598			
Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
Calcium (Total)	79 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042599			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042600			
Nitrogen, Nitrate+Nitrite	8.7 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042601	Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E
3042602	TOC	6.1 mg/L	0.5	SM5310C
AA20565	COD	14 mg/L	10	EPA 410.4
	TKN	0.65 mg/L	0.3	SM4500N(Org)-B
AB17385	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	770.1 MPN/100mL	1	SM9223B

SiteID: WMI-03-0010 **Sample Date:** 07/09/2014 **IDEM Sample #:** AB17559
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	76.4 %	ASTM D888-09(C)
	DO	7.13 mg/L	ASTM D888-09(C)
	pH (Field)	7.88 SU	EPA 150.2
	Specific Conductance (Field)	675 umho/cm	SM2510B
	Temperature	18.02 °C	SM2550B(2)
	Turbidity (Hach)	22.3 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060208	Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
	Chloride	36 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
	Solids, Total (TS)	430 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
	Sulfate	23 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060209	Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
	Calcium (Total)	84 mg/L	0.1	EPA 200.7
	Magnesium (Total)	27 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060210	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060211	Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.2
3060212	Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E
3060213	TOC	5.4 mg/L	0.5	SM5310C
AA22949	COD	6 mg/L	10	EPA 410.4
	TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B
AB17559	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	816.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0010 **Sample Date:** 08/11/2014 **IDEM Sample #:** AB18372
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q6 TURB = 8.3

Lab ID #	Result	Reporting Limit	Method
	% Sat	73.2 %	SM4500-OG
	DO	6.21 mg/L	SM4500-OG
	pH (Field)	7.98 SU	EPA 150.2
	Specific Conductance (Field)	603 umho/cm	SM2510B
	Temperature	21.8 °C	SM2550B(2)
	Turbidity (Hach)	11.8 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

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SiteID: WMI-03-0010

Sample Date: 08/20/2014

IDEM Sample #: AB18747

Water Flow Type Glide

Water Appearance Clear

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	58.4 %		ASTM D888-09(C)
DO	5.51 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	632 umho/cm		SM2510B
Temperature	18.57 °C		SM2550B(2)
Turbidity (Hach)	9.93 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087270	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	260 mg/L	1	SM2320B
Chloride	21 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	12 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	34 mg/L	25	EPA 300.0
Lab ID # 3087271	Result	Reporting Limit	Method
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	78 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7
Lab ID # 3087272	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087273	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
Lab ID # 3087274	Result	Reporting Limit	Method
Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
Lab ID # 3087275	Result	Reporting Limit	Method
TOC	10 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25813			
COD	30 mg/L	10	EPA 410.4
TKN	0.8 mg/L	0.3	SM4500N(Org)-B
AB18747			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: WMI-03-0010 **Sample Date:** 09/17/2014 **IDEM Sample #:** AB19062
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	80 %		ASTM D888-09(C)
DO	8.76 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	721 umho/cm		SM2510B
Temperature	11.28 °C		SM2550B(2)
Turbidity (Hach)	7.55 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	6 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105652			
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	37 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	30 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105655			
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	90 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105656			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105659			
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3105662	Phosphorus, Total 0.16 mg/L	0.05	SM4500P-E
3105665	TOC 5.7 mg/L	0.5	SM5310C
AA28061	COD 16 mg/L	10	EPA 410.4
	TKN 0.38 mg/L	0.3	SM4500N(Org)-B
AB19062	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 547.5 MPN/100mL	1	SM9223B

SiteID: WMI-03-0010 **Sample Date:** 10/29/2014 **IDEM Sample #:** AB19245
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 71.8 %		ASTM D888-09(C)
	DO 8.19 mg/L		ASTM D888-09(C)
	pH (Field) 7.73 SU		EPA 150.2
	Specific Conductance (Field) 712 umho/cm		SM2510B
	Temperature 9.63 °C		SM2550B(2)
	Turbidity (Hach) 4.66 NTU		EPA 180.1
	Air Temp 3 Lookup		Observation
	Sky Conditions 1 Lookup		Observation
	Wind Direction 27 Lookup		Observation
	Wind Strength 2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130600	Alkalinity (as CaCO3) 300 mg/L	1	SM2320B
	Chloride 36 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 400 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 400 mg/L	10	SM2540C
	Sulfate 22 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3130601	Hardness (as CaCO3) 350 mg/L	0.66	SM2340B
	Calcium (Total) 91 mg/L	0.1	EPA 200.7
	Magnesium (Total) 29 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130602	Nitrogen, Ammonia < 0.1 mg/L	0.1	SM4500NH3-D
3130603	Nitrogen, Nitrate+Nitrite 0.2 mg/L	0.1	EPA 353.2
3130604	Phosphorus, Total 0.1 mg/L	0.05	SM4500P-E
3130605	TOC 5.5 mg/L	0.5	SM5310C
AA31636	COD 7 mg/L	10	EPA 410.4
	TKN 0.45 mg/L	0.3	SM4500N(Org)-B
AB19245	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 261.3 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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Surface Water Results Summary**

SiteID: WMI-03-0006 **USGS Hydrologic Unit:** 051201030302
Stream Name: Big Lick Creek **County:** Blackford
Description: CR 100 W **Latitude:** 40 25 47.28229 **Longitude:** -85 23 20.95801
Drainage: 52.302 **Site Number:** 14T-136

SiteID: WMI-03-0006 **Sample Date:** 04/16/2014 **IDEM Sample #:** AB16191
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: FLOW - 33.3414 cfs

Lab ID #	Result	Reporting Limit	Method
% Sat	92.4 %		ASTM D888-09(C)
DO	11.8 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	685 umho/cm		SM2510B
Temperature	4.91 °C		SM2550B(2)
Turbidity (Hach)	23.1 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	33.3414 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3011117	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	47 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	50 mg/L	15	EPA 300.0

Lab ID # 3011118	Result	Reporting Limit	Method
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID # 3011119	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3011120	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	2.1 mg/L	0.1	EPA 353.2

Lab ID # 3011121	Result	Reporting Limit	Method
Phosphorus, Total	0.23 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011122	TOC	6.8 mg/L	0.5	SM5310C
AA14527	COD	25 mg/L	10	EPA 410.4
	TKN	1.2 mg/L	0.3	SM4500N(Org)-B
AB16191	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	416 MPN/100mL	1	SM9223B

SiteID: WMI-03-0006 **Sample Date:** 04/23/2014 **IDEM Sample #:** AB16435
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	90 %		ASTM D888-09(C)
	DO	10.24 mg/L		ASTM D888-09(C)
	pH (Field)	7.91 SU		EPA 150.2
	Specific Conductance (Field)	825 umho/cm		SM2510B
	Temperature	9.61 °C		SM2550B(2)
	Turbidity (Hach)	8.9 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
AB16435	Coliforms (Total)	1553.1 MPN/100mL	1	SM9223B
	E. coli	209.8 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0006 Sample Date: 04/30/2014 IDEM Sample #: AB16507
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	81.1 %		ASTM D888-09(C)
DO	8.7 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	548 umho/cm		SM2510B
Temperature	12.08 °C		SM2550B(2)
Turbidity (Hach)	65.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	6131 MPN/100mL	10	SM9223B

SiteID: WMI-03-0006 Sample Date: 05/07/2014 IDEM Sample #: AB16826
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	88 %		ASTM D888-09(C)
DO	9.37 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	861 umho/cm		SM2510B
Temperature	12.43 °C		SM2550B(2)
Turbidity (Hach)	7.34 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	108.6 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0006

Sample Date: 05/14/2014

IDEM Sample #: AB16959

Water Flow Type Run

Water Appearance Brown

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	73.7 %		ASTM D888-09(C)
DO	7.34 mg/L		ASTM D888-09(C)
pH (Field)	7.31 SU		EPA 150.2
Specific Conductance (Field)	440 umho/cm		SM2510B
Temperature	15.5 °C		SM2550B(2)
Turbidity (Hach)	251 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation
Lab ID # 3027181	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	110 mg/L	1	SM2320B
Chloride	32 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	160 mg/L	10	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	29 mg/L	15	EPA 300.0
Lab ID # 3027182	Result	Reporting Limit	Method
Hardness (as CaCO3)	190 mg/L	0.66	SM2340B
Calcium (Total)	51 mg/L	0.1	EPA 200.7
Magnesium (Total)	15 mg/L	0.1	EPA 200.7
Lab ID # 3027183	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.7 mg/L	0.1	SM4500NH3-D
Lab ID # 3027184	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	6.9 mg/L	0.1	EPA 353.2
Lab ID # 3027185	Result	Reporting Limit	Method
Phosphorus, Total	0.98 mg/L	0.05	SM4500P-E
Lab ID # 3027186	Result	Reporting Limit	Method
TOC	16 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17833			
COD	62 mg/L	10	EPA 410.4
TKN	3.2 mg/L	0.3	SM4500N(Org)-B
AB16959a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-03-0006 **Sample Date:** 06/11/2014 **IDEM Sample #:** AB17386
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	80.8 %		ASTM D888-09(C)
DO	7.62 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	579 umho/cm		SM2510B
Temperature	18.1 °C		SM2550B(2)
Turbidity (Hach)	49.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	51.154 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042605			
Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
Chloride	31 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	16 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	38 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042606			
Hardness (as CaCO3)	250 mg/L	0.66	SM2340B
Calcium (Total)	68 mg/L	0.1	EPA 200.7
Magnesium (Total)	19 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042607			
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3042608	Nitrogen, Nitrate+Nitrite	5.1 mg/L	0.1	EPA 353.2
3042609	Phosphorus, Total	0.39 mg/L	0.05	SM4500P-E
3042610	TOC	8.1 mg/L	0.5	SM5310C
AA20566	COD	17 mg/L	10	EPA 410.4
	TKN	0.86 mg/L	0.3	SM4500N(Org)-B
AB17386a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
	E. coli	7701 MPN/100mL	10	SM9223B

SiteID: WMI-03-0006 **Sample Date:** 07/09/2014 **IDEM Sample #:** AB17560
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	71.9 %		ASTM D888-09(C)
	DO	6.57 mg/L		ASTM D888-09(C)
	pH (Field)	7.79 SU		EPA 150.2
	Specific Conductance (Field)	718 umho/cm		SM2510B
	Temperature	19.7 °C		SM2550B(2)
	Turbidity (Hach)	26 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Flow	13.6685 cf/sec		FM D5389-95/D3858
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3060216	Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
	Chloride	78 mg/L	20	EPA 300.0
	Solids, Suspended Total, (TSS)	14 mg/L	10	SM2540D
	Solids, Total (TS)	450 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
	Sulfate	69 mg/L	50	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060219	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	230 mg/L 58 mg/L 20 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060220	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060223	Nitrogen, Nitrate+Nitrite	2 mg/L	0.1	EPA 353.2
3060226	Phosphorus, Total	0.3 mg/L	0.1	SM4500P-E
3060229	TOC	6.6 mg/L	0.5	SM5310C
AA22950	COD TKN	20 mg/L 0.45 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17560	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 1732.9 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-03-0006 **Sample Date:** 08/11/2014 **IDEM Sample #:** AB18371
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q6 Turb = 2.3 NTU

Lab ID #	Result	Reporting Limit	Method
	% Sat	88.1 %	SM4500-OG
	DO	7.33 mg/L	SM4500-OG
	pH (Field)	7.98 SU	EPA 150.2
	Specific Conductance (Field)	1720 umho/cm	SM2510B
	Temperature	22.9 °C	SM2550B(2)
	Turbidity (Hach)	6.6 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-03-0006 Sample Date: 08/20/2014 IDEM Sample #: AB18748
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	71.5 %		ASTM D888-09(C)
DO	6.42 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	1760 umho/cm		SM2510B
Temperature	20.3 °C		SM2550B(2)
Turbidity (Hach)	2.75 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	2.5033 cf/sec		FM D5089-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087278	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
Chloride	240 mg/L	20	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	1000 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	970 mg/L	10	SM2540C
Sulfate	170 mg/L	25	EPA 300.0

Lab ID # 3087279	Result	Reporting Limit	Method
Hardness (as CaCO3)	380 mg/L	0.66	SM2340B
Calcium (Total)	86 mg/L	0.1	EPA 200.7
Magnesium (Total)	39 mg/L	0.1	EPA 200.7

Lab ID # 3087280	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087281	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	4.5 mg/L	0.1	EPA 353.2

Lab ID # 3087282	Result	Reporting Limit	Method
Phosphorus, Total	0.7 mg/L	0.05	SM4500P-E

Lab ID # 3087283	Result	Reporting Limit	Method
TOC	9.6 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25814			
COD	32 mg/L	10	EPA 410.4
TKN	1 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18748			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	135.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0006 **Sample Date:** 09/17/2014 **IDEM Sample #:** AB19063
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	98.2 %		ASTM D888-09(C)
DO	10.25 mg/L		ASTM D888-09(C)
pH (Field)	7.7 SU		EPA 150.2
Specific Conductance (Field)	855 umho/cm		SM2510B
Temperature	13.32 °C		SM2550B(2)
Turbidity (Hach)	8.46 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	12.0203 cf/sec		TM D5389-95/D3858
Sky Conditions	6 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105674			
Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
Chloride	65 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	500 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	63 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105675			
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	77 mg/L	0.1	EPA 200.7
Magnesium (Total)	24 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105676			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

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Lab ID #		Result	Reporting Limit	Method
3105677	Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2
3105678	Phosphorus, Total	0.27 mg/L	0.05	SM4500P-E
3105679	TOC	9.2 mg/L	0.5	SM5310C
AA28062	COD	27 mg/L	10	EPA 410.4
	TKN	0.88 mg/L	0.3	SM4500N(Org)-B
AB19063	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WMI-03-0006 **Sample Date:** 10/29/2014 **IDEM Sample #:** AB19246
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	70.6 %		ASTM D888-09(C)
	DO	7.87 mg/L		ASTM D888-09(C)
	pH (Field)	7.7 SU		EPA 150.2
	Specific Conductance (Field)	996 umho/cm		SM2510B
	Temperature	10.42 °C		SM2550B(2)
	Turbidity (Hach)	5.43 NTU		EPA 180.1
	Air Temp	3 Lookup		Observation
	Flow	17.1279 cf/sec		FM D5389-95/D3858
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	2 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3130608	Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
	Chloride	96 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	580 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	560 mg/L	10	SM2540C
	Sulfate	84 mg/L	25	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3130609	Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
	Calcium (Total)	92 mg/L	0.1	EPA 200.7
	Magnesium (Total)	31 mg/L	0.1	EPA 200.7
3130610	Nitrogen, Ammonia	0.3 mg/L	0.1	SM4500NH3-D
3130611	Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2
3130612	Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E
3130613	TOC	8.3 mg/L	0.5	SM5310C
AA31637	COD	19 mg/L	10	EPA 410.4
	TKN	1.2 mg/L	0.3	SM4500N(Org)-B
AB19246	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	816.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0006 **Sample Date:** 11/19/2014 **IDEM Sample #:** AB19603
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	101.6 %	ASTM D888-09(C)
	DO	13.65 mg/L	ASTM D888-09(C)
	pH (Field)	7.88 SU	EPA 150.2
	Specific Conductance (Field)	1385 umho/cm	SM2510B
	Temperature	2.91 °C	SM2550B(2)
	Turbidity (Hach)	16.1 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Flow	7.0351 cf/sec	TM D5389-95/D3858
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

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Lab ID #	Result	Reporting Limit	Method
3142793			
Alkalinity (as CaCO3)	370 mg/L	1	SM2320B
Chloride	140 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	17 mg/L	10	SM2540D
Solids, Total (TS)	830 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	810 mg/L	10	SM2540C
Sulfate	110 mg/L	25	EPA 300.0
3142796			
Hardness (as CaCO3)	450 mg/L	0.66	SM2340B
Calcium (Total)	120 mg/L	0.1	EPA 200.7
Magnesium (Total)	38 mg/L	0.1	EPA 200.7
3142797			
Nitrogen, Ammonia	0.5 mg/L	0.1	SM4500NH3-D
3142800			
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.2
3142803			
Phosphorus, Total	0.15 mg/L	0.05	SM4500P-E
3142806			
TOC	16 mg/L	0.5	SM5310C
50107929006			
COD	55.7 mg/L	10	EPA 410.4
TKN	1.9 mg/L	0.5	EPA 351.2
AB19603			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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SiteID: WMI-03-0006 Sample Date: 12/15/2014 IDEM Sample #: AB19852
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.7 %		ASTM D888-09(C)
DO	10.99 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	810 umho/cm		SM2510B
Temperature	6.52 °C		SM2550B(2)
Turbidity (Hach)	17.1 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	17.4106 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3156175	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	280 mg/L	1	SM2320B
Chloride	55 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	15 mg/L	10	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	63 mg/L	25	EPA 300.0

Lab ID # 3156176	Result	Reporting Limit	Method
Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
Calcium (Total)	93 mg/L	0.1	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7

Lab ID # 3156177	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.6 mg/L	0.1	SM4500NH3-D

Lab ID # 3156178	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.2

Lab ID # 3156179	Result	Reporting Limit	Method
Phosphorus, Total	0.27 mg/L	0.05	SM4500P-E

Lab ID # 3156180	Result	Reporting Limit	Method
TOC	9.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
50109606007			
COD	27.7 mg/L	10	EPA 410.4
TKN	1.3 mg/L	0.5	EPA 351.2

SiteID: WMI-03-0006 **Sample Date:** 01/20/2015 **IDEM Sample #:** AB20323
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	87.4 %		ASTM D888-09(C)
DO	12.46 mg/L		ASTM D888-09(C)
pH (Field)	7.59 SU		EPA 150.2
Specific Conductance (Field)	406 umho/cm		SM2510B
Temperature	0.93 °C		SM2550B(2)
Turbidity (Hach)	53.3 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Flow	64.9317 cf/sec		TM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3173806			
Alkalinity (as CaCO3)	130 mg/L	1	SM2320B
Chloride	29 mg/L	4	EPA 300.0
Solids, Suspended Total, (TSS)	14 mg/L	10	SM2540D
Solids, Total (TS)	260 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	220 mg/L	10	SM2540C
Sulfate	24 mg/L	10	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3173809			
Hardness (as CaCO3)	160 mg/L	0.66	SM2340B
Calcium (Total)	43 mg/L	0.1	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3173810			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3173813			
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3173816			
Phosphorus, Total	0.36 mg/L	0.05	SM4500P-E

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Lab ID #	Result	Reporting Limit	Method	
3173819	TOC	8.6 mg/L	0.5	SM5310C

Lab ID #	Result	Reporting Limit	Method	
50111361008	COD	26.9 mg/L	10	EPA 410.4
	TKN	0.93 mg/L	0.5	EPA 351.2

SiteID: WMI-03-0006 **Sample Date:** 03/17/2015 **IDEM Sample #:** AB20796
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	83.9 %	ASTM D888-09(C)
	DO	10.44 mg/L	ASTM D888-09(C)
	pH (Field)	7.72 SU	EPA 150.2
	Specific Conductance (Field)	566 umho/cm	SM2510B
	Temperature	5.89 °C	SM2550B(2)
	Turbidity (Hach)	44.8 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Flow	79.6114 cf/sec	TM D5389-95/D3858
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3208966	Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
	Chloride	44 mg/L	6	EPA 300.0
	Solids, Suspended Total, (TSS)	52 mg/L	10	SM2540D
	Solids, Total (TS)	380 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
	Sulfate	38 mg/L	15	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3208967	Hardness (as CaCO3)	240 mg/L	0.66	SM2340B
	Calcium (Total)	66 mg/L	0.1	EPA 200.7
	Magnesium (Total)	19 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method	
3208968	Nitrogen, Ammonia	0.3 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method	
3208969	Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3208970	Phosphorus, Total	0.7 mg/L	0.25	SM4500P-E
3208971	TOC	9.9 mg/L	0.5	SM5310C
50114905006	COD	23 mg/L	10	EPA 410.4
	TKN	2.1 mg/L	0.5	EPA 351.2

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI-03-0007 **USGS Hydrologic Unit:** 051201030302
Stream Name: Moore Prong **County:** Blackford
Description: CR 100 W **Latitude:** 40 26 30.45634 **Longitude:** -85 23 21.03347
Drainage: 5.167 **Site Number:** 14T-137

SiteID: WMI-03-0007 **Sample Date:** 04/16/2014 **IDEM Sample #:** AB16192
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	102.8 %	ASTM D888-09(C)
	DO	13.45 mg/L	ASTM D888-09(C)
	pH (Field)	8.18 SU	EPA 150.2
	Specific Conductance (Field)	572 umho/cm	SM2510B
	Temperature	3.97 °C	SM2550B(2)
	Turbidity (Hach)	12.4 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3011125	Alkalinity (as CaCO3)	210 mg/L	1 SM2320B
	Chloride	31 mg/L	6 EPA 300.0
	Fluoride	0.2 mg/L	0.1 SM4500F(-)-C
	Solids, Suspended Total, (TSS)	< 10 mg/L	10 SM2540D
	Solids, Total (TS)	350 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10 SM2540C
	Sulfate	31 mg/L	15 EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3011126	Hardness (as CaCO3)	270 mg/L	0.66 SM2340B
	Calcium (Total)	72 mg/L	0.1 EPA 200.7
	Magnesium (Total)	22 mg/L	0.1 EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3011127	Nitrogen, Ammonia	< 0.1 mg/L	0.1 SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3011128	Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1 EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3011129	Phosphorus, Total	0.1 mg/L	0.05 SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011130	TOC	4 mg/L	0.5	SM5310C
AA14528	COD	15 mg/L	10	EPA 410.4
	TKN	0.59 mg/L	0.3	SM4500N(Org)-B
AB16192	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	206.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0007 **Sample Date:** 04/23/2014 **IDEM Sample #:** AB16436
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	81.8 %		ASTM D888-09(C)
	DO	10.68 mg/L		ASTM D888-09(C)
	pH (Field)	8.08 SU		EPA 150.2
	Specific Conductance (Field)	670 umho/cm		SM2510B
	Temperature	7.69 °C		SM2550B(2)
	Turbidity (Hach)	7.14 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation
AB16436	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	290.9 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0007 Sample Date: 04/30/2014 IDEM Sample #: AB16508
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	95.3 %		ASTM D888-09(C)
DO	10.62 mg/L		ASTM D888-09(C)
pH (Field)	7.93 SU		EPA 150.2
Specific Conductance (Field)	594 umho/cm		SM2510B
Temperature	10.48 °C		SM2550B(2)
Turbidity (Hach)	15.3 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # AB16508	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0007 Sample Date: 05/07/2014 IDEM Sample #: AB16827
 Water Flow Type Riffle Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	88.1 %		ASTM D888-09(C)
DO	9.48 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	680 umho/cm		SM2510B
Temperature	11.96 °C		SM2550B(2)
Turbidity (Hach)	6.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB16827	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0007 Sample Date: 05/14/2014 IDEM Sample #: AB16960
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	79.9 %		ASTM D888-09(C)
DO	8.3 mg/L		ASTM D888-09(C)
pH (Field)	7.35 SU		EPA 150.2
Specific Conductance (Field)	449 umho/cm		SM2510B
Temperature	13.55 °C		SM2550B(2)
Turbidity (Hach)	113 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3027189	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	120 mg/L	1	SM2320B
Chloride	32 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	68 mg/L	10	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	26 mg/L	15	EPA 300.0

Lab ID # 3027190	Result	Reporting Limit	Method
Hardness (as CaCO3)	200 mg/L	0.66	SM2340B
Calcium (Total)	56 mg/L	0.1	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7

Lab ID # 3027191	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.4 mg/L	0.1	SM4500NH3-D

Lab ID # 3027192	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	6.7 mg/L	0.1	EPA 353.2

Lab ID # 3027193	Result	Reporting Limit	Method
Phosphorus, Total	0.85 mg/L	0.05	SM4500P-E

Lab ID # 3027194	Result	Reporting Limit	Method
TOC	15 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17834			
COD	56 mg/L	10	EPA 410.4
TKN	2.4 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB16960a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	2247 MPN/100mL	10	SM9223B

SiteID: WMI-03-0007 **Sample Date:** 06/11/2014 **IDEM Sample #:** AB17387
Water Flow Type Riffle **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	92.7 %		ASTM D888-09(C)
DO	8.89 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	602 umho/cm		SM2510B
Temperature	17.3 °C		SM2550B(2)
Turbidity (Hach)	18.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042613			
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	29 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	11 mg/L	10	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042614			
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	79 mg/L	0.1	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042615			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042616			
Nitrogen, Nitrate+Nitrite	5.2 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042617	Phosphorus, Total	0.15 mg/L	0.05	SM4500P-E
3042618	TOC	4 mg/L	0.5	SM5310C
AA20567	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.83 mg/L	0.3	SM4500N(Org)-B
AB17387	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	1553.1 MPN/100mL	1	SM9223B

SiteID: WMI-03-0007 **Sample Date:** 07/09/2014 **IDEM Sample #:** AB17561
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	92.5 %	ASTM D888-09(C)
	DO	8.41 mg/L	ASTM D888-09(C)
	pH (Field)	8.1 SU	EPA 150.2
	Specific Conductance (Field)	738 umho/cm	SM2510B
	Temperature	19.9 °C	SM2550B(2)
	Turbidity (Hach)	12.7 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060244	Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
	Chloride	36 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	490 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
	Sulfate	65 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060245	Hardness (as CaCO3)	340 mg/L	0.66	SM2340B
	Calcium (Total)	89 mg/L	0.1	EPA 200.7
	Magnesium (Total)	30 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060246	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060247	Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.2
3060248	Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E
3060249	TOC	3.6 mg/L	0.5	SM5310C
AA22952	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.61 mg/L	0.3	SM4500N(Org)-B
AB17561	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	686.7 MPN/100mL	1	SM9223B

SiteID: WMI-03-0007 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18370
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q6 Turb: 10.1 NTU

Lab ID #	Result	Reporting Limit	Method
	% Sat	88.3 %	SM4500-OG
	DO	7.63 mg/L	SM4500-OG
	pH (Field)	8.24 SU	EPA 150.2
	Specific Conductance (Field)	711 umho/cm	SM2510B
	Temperature	21.06 °C	SM2550B(2)
	Turbidity (Hach)	9.44 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-03-0007 Sample Date: 08/20/2014 IDEM Sample #: AB18749
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	85.7 %		ASTM D888-09(C)
DO	7.61 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	784 umho/cm		SM2510B
Temperature	21.12 °C		SM2550B(2)
Turbidity (Hach)	38.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087286	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	260 mg/L	1	SM2320B
Chloride	26 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
Sulfate	100 mg/L	25	EPA 300.0
Lab ID # 3087287	Result	Reporting Limit	Method
Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
Calcium (Total)	81 mg/L	0.1	EPA 200.7
Magnesium (Total)	32 mg/L	0.1	EPA 200.7
Lab ID # 3087288	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087289	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
Lab ID # 3087290	Result	Reporting Limit	Method
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
Lab ID # 3087291	Result	Reporting Limit	Method
TOC	4.2 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25815			
COD	15 mg/L	10	EPA 410.4
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-B

Lab ID #	Result	Reporting Limit	Method
AB18749			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.9 MPN/100mL	1	SM9223B

SiteID: WMI-03-0007 **Sample Date:** 09/17/2014 **IDEM Sample #:** AB19064
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	94.7 %		ASTM D888-09(C)
DO	10.05 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	710 umho/cm		SM2510B
Temperature	12.53 °C		SM2550B(2)
Turbidity (Hach)	12.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105682			
Alkalinity (as CaCO3)	260 mg/L	1	SM2320B
Chloride	35 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	11 mg/L	10	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	46 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105683			
Hardness (as CaCO3)	310 mg/L	0.66	SM2340B
Calcium (Total)	85 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105684			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105685			
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105686	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
3105687	TOC	4.1 mg/L	0.5	SM5310C
AA28063	COD	6 mg/L	10	EPA 410.4
	TKN	0.67 mg/L	0.3	SM4500N(Org)-B
AB19064	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WMI-03-0007 **Sample Date:** 10/29/2014 **IDEM Sample #:** AB19247
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	80.6 %	ASTM D888-09(C)
	DO	9.21 mg/L	ASTM D888-09(C)
	pH (Field)	7.9 SU	EPA 150.2
	Specific Conductance (Field)	736 umho/cm	SM2510B
	Temperature	9.65 °C	SM2550B(2)
	Turbidity (Hach)	5.23 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3130616	Alkalinity (as CaCO3)	300 mg/L	1	SM2320B
	Chloride	38 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
	Solids, Total (TS)	450 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
	Sulfate	42 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3130617	Hardness (as CaCO3)	330 mg/L	0.66	SM2340B
	Calcium (Total)	90 mg/L	0.1	EPA 200.7
	Magnesium (Total)	27 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130618	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130619	Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.2
3130620	Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
3130621	TOC	4.1 mg/L	0.5	SM5310C
AA31638	COD	6 mg/L	10	EPA 410.4
	TKN	0.32 mg/L	0.3	SM4500N(Org)-B
AB19247	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	816.4 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

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SiteID: WMI040-0003 **USGS Hydrologic Unit:** 051201030301
Stream Name: Little Lick Creek **County:** Blackford
Description: SR 3, S of Hartford City **Latitude:** 40 26 32.11331 **Longitude:** -85 22 12.26957
Drainage: 12.939 **Site Number:** 14T-138

SiteID: WMI040-0003 **Sample Date:** 04/16/2014 **IDEM Sample #:** AB16193
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	82.8 %		ASTM D888-09(C)
DO	10.41 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	495 umho/cm		SM2510B
Temperature	5.58 °C		SM2550B(2)
Turbidity (Hach)	33.3 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3011133	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	1	SM2320B
Chloride	25 mg/L	6	EPA 300.0
Fluoride	0.1 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	16 mg/L	10	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	34 mg/L	15	EPA 300.0

Lab ID # 3011134	Result	Reporting Limit	Method
Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
Calcium (Total)	64 mg/L	0.1	EPA 200.7
Magnesium (Total)	17 mg/L	0.1	EPA 200.7

Lab ID # 3011135	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3011136	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.2

Lab ID # 3011137	Result	Reporting Limit	Method
Phosphorus, Total	0.21 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011138	TOC	8.7 mg/L	0.5	SM5310C
AA14529	COD	27 mg/L	10	EPA 410.4
	TKN	0.91 mg/L	0.3	SM4500N(Org)-B
AB16193	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	686.7 MPN/100mL	1	SM9223B

SiteID: WMI040-0003 **Sample Date:** 04/23/2014 **IDEM Sample #:** AB16437
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	94.8 %		ASTM D888-09(C)
	DO	10.07 mg/L		ASTM D888-09(C)
	pH (Field)	7.9 SU		EPA 150.2
	Specific Conductance (Field)	535 umho/cm		SM2510B
	Temperature	12.14 °C		SM2550B(2)
	Turbidity (Hach)	23.1 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation
AB16437	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	686.7 MPN/100mL	1	SM9223B

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SiteID: WMI040-0003 Sample Date: 04/30/2014 IDEM Sample #: AB16509
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	71.7 %		ASTM D888-09(C)
DO	7.75 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	434 umho/cm		SM2510B
Temperature	11.8 °C		SM2550B(2)
Turbidity (Hach)	84.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16509			
E. coli	1413.6 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16509a			
Coliforms (Total)	19863 MPN/100mL	10	SM9223B

SiteID: WMI040-0003 Sample Date: 05/07/2014 IDEM Sample #: AB16828
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	91.7 %		ASTM D888-09(C)
DO	9.24 mg/L		ASTM D888-09(C)
pH (Field)	7.65 SU		EPA 150.2
Specific Conductance (Field)	612 umho/cm		SM2510B
Temperature	14.9 °C		SM2550B(2)
Turbidity (Hach)	54 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16828			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	816.4 MPN/100mL	1	SM9223B

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SiteID: WMI040-0003 **Sample Date:** 05/14/2014 **IDEM Sample #:** AB16961
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	68.6 %		ASTM D888-09(C)
DO	6.92 mg/L		ASTM D888-09(C)
pH (Field)	7.17 SU		EPA 150.2
Specific Conductance (Field)	405 umho/cm		SM2510B
Temperature	15.1 °C		SM2550B(2)
Turbidity (Hach)	260 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 3027239	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	89 mg/L	1	SM2320B
Chloride	31 mg/L	6	EPA 300.0
Solids, Suspended Total, (TSS)	120 mg/L	10	SM2540D
Solids, Total (TS)	470 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	28 mg/L	15	EPA 300.0

Lab ID # 3027240	Result	Reporting Limit	Method
Hardness (as CaCO3)	180 mg/L	0.66	SM2340B
Calcium (Total)	49 mg/L	0.1	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7

Lab ID # 3027241	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.8 mg/L	0.1	SM4500NH3-D

Lab ID # 3027242	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	7.1 mg/L	0.1	EPA 353.2

Lab ID # 3027243	Result	Reporting Limit	Method
Phosphorus, Total	0.88 mg/L	0.05	SM4500P-E

Lab ID # 3027244	Result	Reporting Limit	Method
TOC	17 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17835			
COD	64 mg/L	10	EPA 410.4
TKN	3.8 mg/L	0.3	SM4500N(Org)-B
AB16961a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI040-0003 **Sample Date:** 06/11/2014 **IDEM Sample #:** AB17388
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	65.7 %		ASTM D888-09(C)
DO	6.15 mg/L		ASTM D888-09(C)
pH (Field)	7.25 SU		EPA 150.2
Specific Conductance (Field)	438 umho/cm		SM2510B
Temperature	18.52 °C		SM2550B(2)
Turbidity (Hach)	58.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042621			
Alkalinity (as CaCO3)	130 mg/L	1	SM2320B
Chloride	20 mg/L	4	EPA 300.0
Solids, Suspended Total, (TSS)	29 mg/L	10	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	30 mg/L	10	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042624			
Hardness (as CaCO3)	200 mg/L	0.66	SM2340B
Calcium (Total)	56 mg/L	0.1	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042625			
Nitrogen, Ammonia	0.3 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042628			
Nitrogen, Nitrate+Nitrite	5.8 mg/L	0.1	EPA 353.2

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Lab ID #		Result	Reporting Limit	Method
3042631	Phosphorus, Total	0.31 mg/L	0.05	SM4500P-E
3042634	TOC	12 mg/L	0.5	SM5310C
AA20568	COD	36 mg/L	10	EPA 410.4
	TKN	0.33 mg/L	0.3	SM4500N(Org)-B
AB17388	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	1732.9 MPN/100mL	1	SM9223B

SiteID: WMI040-0003 **Sample Date:** 07/09/2014 **IDEM Sample #:** AB17562
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		Result	Reporting Limit	Method
	% Sat	91.9 %		ASTM D888-09(C)
	DO	8 mg/L		ASTM D888-09(C)
	pH (Field)	7.81 SU		EPA 150.2
	Specific Conductance (Field)	680 umho/cm		SM2510B
	Temperature	22.02 °C		SM2550B(2)
	Turbidity (Hach)	11.9 NTU		EPA 180.1
	Air Temp	4 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	0 Lookup		Observation

Lab ID #		Result	Reporting Limit	Method
3060260	Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
	Chloride	34 mg/L	2	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	430 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
	Sulfate	47 mg/L	5	EPA 300.0

Lab ID #		Result	Reporting Limit	Method
3060261	Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
	Calcium (Total)	89 mg/L	0.1	EPA 200.7
	Magnesium (Total)	24 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060262	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060263	Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.2
3060264	Phosphorus, Total	0.24 mg/L	0.05	SM4500P-E
3060265	TOC	11 mg/L	0.5	SM5310C
AA22954	COD	27 mg/L	10	EPA 410.4
	TKN	1.3 mg/L	0.3	SM4500N(Org)-B
AB17562	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	281.2 MPN/100mL	1	SM9223B

SiteID: WMI040-0003 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18400
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q6 Turb: 5.8 NTU

Lab ID #	Result	Reporting Limit	Method
	% Sat	72.2 %	SM4500-OG
	DO	6.18 mg/L	SM4500-OG
	pH (Field)	7.84 SU	EPA 150.2
	Specific Conductance (Field)	775 umho/cm	SM2510B
	Temperature	21.27 °C	SM2550B(2)
	Turbidity (Hach)	11.3 NTU	EPA 180.1
	Air Temp	Lookup	Observation
	Sky Conditions	Lookup	Observation
	Wind Direction	Lookup	Observation
	Wind Strength	Lookup	Observation

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SiteID: WMI040-0003 Sample Date: 08/20/2014 IDEM Sample #: AB18750
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	32.8 %		ASTM D888-09(C)
DO	2.84 mg/L		ASTM D888-09(C)
pH (Field)	7.59 SU		EPA 150.2
Specific Conductance (Field)	1000 umho/cm		SM2510B
Temperature	22.26 °C		SM2550B(2)
Turbidity (Hach)	2.37 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3087294	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	88 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	560 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	550 mg/L	10	SM2540C
Sulfate	110 mg/L	25	EPA 300.0

Lab ID # 3087295	Result	Reporting Limit	Method
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	75 mg/L	0.1	EPA 200.7
Magnesium (Total)	31 mg/L	0.1	EPA 200.7

Lab ID # 3087296	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3087297	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

Lab ID # 3087298	Result	Reporting Limit	Method
Phosphorus, Total	0.36 mg/L	0.05	SM4500P-E

Lab ID # 3087299	Result	Reporting Limit	Method
TOC	9.8 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25816			
COD	24 mg/L	10	EPA 410.4
TKN	0.61 mg/L	0.3	SM4500N(Org)-B
AB18750			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	127.4 MPN/100mL	1	SM9223B

SiteID: WMI040-0003 **Sample Date:** 09/17/2014 **IDEM Sample #:** AB19065
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	34.6 %		ASTM D888-09(C)
DO	3.52 mg/L		ASTM D888-09(C)
pH (Field)	7.42 SU		EPA 150.2
Specific Conductance (Field)	428 umho/cm		SM2510B
Temperature	14.53 °C		SM2550B(2)
Turbidity (Hach)	5.16 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105690			
Alkalinity (as CaCO3)	160 mg/L	1	SM2320B
Chloride	14 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	240 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
Sulfate	26 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105691			
Hardness (as CaCO3)	180 mg/L	0.66	SM2340B
Calcium (Total)	53 mg/L	0.1	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105692			
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105693			
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105694	Phosphorus, Total	0.35 mg/L	0.05	SM4500P-E
3105695	TOC	13 mg/L	0.5	SM5310C
AA28064	COD	40 mg/L	10	EPA 410.4
	TKN	1.2 mg/L	0.3	SM4500N(Org)-B
AB19065	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI040-0003 **Sample Date:** 10/29/2014 **IDEM Sample #:** AB19248
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method	
	% Sat	45.1 %	ASTM D888-09(C)	
	DO	4.94 mg/L	ASTM D888-09(C)	
	pH (Field)	7.35 SU	EPA 150.2	
	Specific Conductance (Field)	641 umho/cm	SM2510B	
	Temperature	11.18 °C	SM2550B(2)	
	Turbidity (Hach)	15 NTU	EPA 180.1	
	Air Temp	3 Lookup	Observation	
	Sky Conditions	1 Lookup	Observation	
	Wind Direction	27 Lookup	Observation	
	Wind Strength	1 Lookup	Observation	
3130624	Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
	Chloride	33 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	15 mg/L	10	SM2540D
	Solids, Total (TS)	420 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
	Sulfate	55 mg/L	25	EPA 300.0
3130625	Hardness (as CaCO3)	300 mg/L	0.66	SM2340B
	Calcium (Total)	83 mg/L	0.1	EPA 200.7
	Magnesium (Total)	21 mg/L	0.1	EPA 200.7

**Indiana Department of Environmental Management
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Lab ID #	Result	Reporting Limit	Method
3130626	Nitrogen, Ammonia 0.2 mg/L	0.1	SM4500NH3-D
3130627	Nitrogen, Nitrate+Nitrite 0.3 mg/L	0.1	EPA 353.2
3130628	Phosphorus, Total 0.07 mg/L	0.05	SM4500P-E
3130629	TOC 23 mg/L	2.5	SM5310C
AA31639	COD 55 mg/L	10	EPA 410.4
	TKN 2.4 mg/L	0.3	SM4500N(Org)-B
AB19248	E. coli 325.5 MPN/100mL	1	SM9223B
AB19248a	Coliforms (Total) 11199 MPN/100mL	10	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WMI040-0009 **USGS Hydrologic Unit:** 051201030301
Stream Name: Big Lick Creek **County:** Blackford
Description: SR 3 South of Hartford City **Latitude:** 40 25 53.50547 **Longitude:** -85 22 12.61135
Drainage: 32.464 **Site Number:** 14T-139

SiteID: WMI040-0009 **Sample Date:** 04/16/2014 **IDEM Sample #:** AB16194
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	102.8 %		ASTM D888-09(C)
DO	12.79 mg/L		ASTM D888-09(C)
pH (Field)	8.12 SU		EPA 150.2
Specific Conductance (Field)	650 umho/cm		SM2510B
Temperature	5.92 °C		SM2550B(2)
Turbidity (Hach)	23.7 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 3011178	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	220 mg/L	1	SM2320B
Chloride	42 mg/L	10	EPA 300.0
Fluoride	0.3 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	12 mg/L	10	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	53 mg/L	15	EPA 300.0

Lab ID # 3011181	Result	Reporting Limit	Method
Hardness (as CaCO3)	290 mg/L	0.66	SM2340B
Calcium (Total)	78 mg/L	0.1	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7

Lab ID # 3011182	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID # 3011185	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.2

Lab ID # 3011188	Result	Reporting Limit	Method
Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011191	TOC	5.6 mg/L	0.5	SM5310C
AA14530	COD	13 mg/L	10	EPA 410.4
	TKN	0.75 mg/L	0.3	SM4500N(Org)-B
AB16194	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	209.8 MPN/100mL	1	SM9223B

SiteID: WMI040-0009 **Sample Date:** 04/23/2014 **IDEM Sample #:** AB16438
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	122.6 %		ASTM D888-09(C)
	DO	13.64 mg/L		ASTM D888-09(C)
	pH (Field)	8.31 SU		EPA 150.2
	Specific Conductance (Field)	738 umho/cm		SM2510B
	Temperature	10.54 °C		SM2550B(2)
	Turbidity (Hach)	4.63 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation
AB16438	Coliforms (Total)	1413.6 MPN/100mL	1	SM9223B
	E. coli	104.6 MPN/100mL	1	SM9223B

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SiteID: WMI040-0009 Sample Date: 04/30/2014 IDEM Sample #: AB16510
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	87.9 %		ASTM D888-09(C)
DO	9.34 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	513 umho/cm		SM2510B
Temperature	12.5 °C		SM2550B(2)
Turbidity (Hach)	61.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16510			
E. coli	1299.7 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16510a			
Coliforms (Total)	19863 MPN/100mL	10	SM9223B

SiteID: WMI040-0009 Sample Date: 05/07/2014 IDEM Sample #: AB16829
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	119.6 %		ASTM D888-09(C)
DO	12.28 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	726 umho/cm		SM2510B
Temperature	14.11 °C		SM2550B(2)
Turbidity (Hach)	4.94 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16829			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	85.7 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI040-0009

Sample Date: 05/14/2014

IDEM Sample #: AB16962

Water Flow Type Glide

Water Appearance

Water Depth

Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	76 %	ASTM D888-09(C)
	DO	7.56 mg/L	ASTM D888-09(C)
	pH (Field)	7.34 SU	EPA 150.2
	Specific Conductance (Field)	417 umho/cm	SM2510B
	Temperature	15.61 °C	SM2550B(2)
	Turbidity (Hach)	293 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation
Lab ID # 3027247	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	110 mg/L	1 SM2320B
	Chloride	29 mg/L	6 EPA 300.0
	Solids, Suspended Total, (TSS)	180 mg/L	10 SM2540D
	Solids, Total (TS)	510 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10 SM2540C
	Sulfate	26 mg/L	15 EPA 300.0
Lab ID # 3027248	Result	Reporting Limit	Method
	Hardness (as CaCO3)	190 mg/L	0.66 SM2340B
	Calcium (Total)	50 mg/L	0.1 EPA 200.7
	Magnesium (Total)	16 mg/L	0.1 EPA 200.7
Lab ID # 3027249	Result	Reporting Limit	Method
	Nitrogen, Ammonia	0.7 mg/L	0.1 SM4500NH3-D
Lab ID # 3027250	Result	Reporting Limit	Method
	Nitrogen, Nitrate+Nitrite	6.4 mg/L	0.1 EPA 353.2
Lab ID # 3027251	Result	Reporting Limit	Method
	Phosphorus, Total	0.98 mg/L	0.25 SM4500P-E
Lab ID # 3027252	Result	Reporting Limit	Method
	TOC	16 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17836			
COD	59 mg/L	10	EPA 410.4
TKN	3 mg/L	0.3	SM4500N(Org)-B
AB16962a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	7701 MPN/100mL	10	SM9223B

SiteID: WMI040-0009 **Sample Date:** 06/11/2014 **IDEM Sample #:** AB17390
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	89.7 %		ASTM D888-09(C)
DO	8.47 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	526 umho/cm		SM2510B
Temperature	18.09 °C		SM2550B(2)
Turbidity (Hach)	54.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042649			
Alkalinity (as CaCO3)	180 mg/L	1	SM2320B
Chloride	20 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	28 mg/L	10	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	33 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042650			
Hardness (as CaCO3)	250 mg/L	0.66	SM2340B
Calcium (Total)	67 mg/L	0.1	EPA 200.7
Magnesium (Total)	20 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042651			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042652			
Nitrogen, Nitrate+Nitrite	4.5 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042653	Phosphorus, Total	0.3 mg/L	0.05	SM4500P-E
3042654	TOC	5.8 mg/L	0.5	SM5310C
AA20570	COD	15 mg/L	10	EPA 410.4
	TKN	0.86 mg/L	0.3	SM4500N(Org)-B
AB17390	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	1119.9 MPN/100mL	1	SM9223B

SiteID: WMI040-0009 **Sample Date:** 07/09/2014 **IDEM Sample #:** AB17564
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	111.7 %	ASTM D888-09(C)
	DO	9.9 mg/L	ASTM D888-09(C)
	pH (Field)	8.15 SU	EPA 150.2
	Specific Conductance (Field)	542 umho/cm	SM2510B
	Temperature	21.16 °C	SM2550B(2)
	Turbidity (Hach)	28.4 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	2 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060268	Alkalinity (as CaCO3)	150 mg/L	1	SM2320B
	Chloride	47 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	13 mg/L	10	SM2540D
	Solids, Total (TS)	340 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
	Sulfate	49 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method	
3060269	Hardness (as CaCO3)	200 mg/L	0.66	SM2340B
	Calcium (Total)	50 mg/L	0.1	EPA 200.7
	Magnesium (Total)	17 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3060270	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3060271	Nitrogen, Nitrate+Nitrite	1.3 mg/L	0.1	EPA 353.2
3060272	Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E
3060273	TOC	4.5 mg/L	0.5	SM5310C
AA22955	COD	7 mg/L	10	EPA 410.4
	TKN	0.74 mg/L	0.3	SM4500N(Org)-B
AB17564	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	2419.6 MPN/100mL	1	SM9223B

SiteID: WMI040-0009 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18401
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	83.3 %	SM4500-OG
	DO	7 mg/L	SM4500-OG
	pH (Field)	8.16 SU	EPA 150.2
	Specific Conductance (Field)	871 umho/cm	SM2510B
	Temperature	21.81 °C	SM2550B(2)
	Turbidity (Hach)	5.14 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	1 Lookup	Observation

**Indiana Department of Environmental Management
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SiteID: WMI040-0009 Sample Date: 08/20/2014 IDEM Sample #: AB18752
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	86.9 %		ASTM D888-09(C)
DO	7.7 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	1480 umho/cm		SM2510B
Temperature	21.08 °C		SM2550B(2)
Turbidity (Hach)	2.69 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087302	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	210 mg/L	20	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	830 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	790 mg/L	10	SM2540C
Sulfate	140 mg/L	25	EPA 300.0
Lab ID # 3087303	Result	Reporting Limit	Method
Hardness (as CaCO3)	360 mg/L	0.66	SM2340B
Calcium (Total)	79 mg/L	0.1	EPA 200.7
Magnesium (Total)	39 mg/L	0.1	EPA 200.7
Lab ID # 3087304	Result	Reporting Limit	Method
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
Lab ID # 3087305	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2
Lab ID # 3087306	Result	Reporting Limit	Method
Phosphorus, Total	0.05 mg/L	0.05	SM4500P-E
Lab ID # 3087307	Result	Reporting Limit	Method
TOC	4.1 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25817			
COD	17 mg/L	10	EPA 410.4
TKN	0.38 mg/L	0.3	SM4500N(Org)-B
AB18752			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	193.5 MPN/100mL	1	SM9223B

SiteID: WMI040-0009 **Sample Date:** 09/17/2014 **IDEM Sample #:** AB19067
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	98.5 %		ASTM D888-09(C)
DO	10.13 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	854 umho/cm		SM2510B
Temperature	13.9 °C		SM2550B(2)
Turbidity (Hach)	6.72 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105698			
Alkalinity (as CaCO3)	240 mg/L	1	SM2320B
Chloride	62 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	980 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	470 mg/L	10	SM2540C
Sulfate	64 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105699			
Hardness (as CaCO3)	320 mg/L	0.66	SM2340B
Calcium (Total)	83 mg/L	0.1	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105700			
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105701			
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method
3105702	Phosphorus, Total 0.16 mg/L	0.05	SM4500P-E
3105703	TOC 5.5 mg/L	0.5	SM5310C
AA28065	COD 14 mg/L	10	EPA 410.4
	TKN 0.32 mg/L	0.3	SM4500N(Org)-B
AB19067	Coliforms (Total) > 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli 488.4 MPN/100mL	1	SM9223B

SiteID: WMI040-0009 **Sample Date:** 10/29/2014 **IDEM Sample #:** AB19250
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat 111.2 %		ASTM D888-09(C)
	DO 12.33 mg/L		ASTM D888-09(C)
	pH (Field) 8.07 SU		EPA 150.2
	Specific Conductance (Field) 1054 umho/cm		SM2510B
	Temperature 10.53 °C		SM2550B(2)
	Turbidity (Hach) 4.49 NTU		EPA 180.1
	Air Temp 3 Lookup		Observation
	Sky Conditions 1 Lookup		Observation
	Wind Direction 27 Lookup		Observation
	Wind Strength 2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3130632	Alkalinity (as CaCO3) 290 mg/L	1	SM2320B
	Chloride 120 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS) < 10 mg/L	10	SM2540D
	Solids, Total (TS) 650 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS) 660 mg/L	10	SM2540C
	Sulfate 94 mg/L	25	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3130633	Hardness (as CaCO3) 380 mg/L	0.66	SM2340B
	Calcium (Total) 97 mg/L	0.1	EPA 200.7
	Magnesium (Total) 34 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method	
3130634	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-D
3130635	Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	EPA 353.2
3130636	Phosphorus, Total	0.16 mg/L	0.05	SM4500P-E
3130637	TOC	4.7 mg/L	0.5	SM5310C
AA31640	COD	< 10 mg/L	10	EPA 410.4
	TKN	0.58 mg/L	0.3	SM4500N(Org)-B
AB19250	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	727 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WMI-03-0008 **USGS Hydrologic Unit:** 051201030301
Stream Name: Little Lick Creek **County:** Blackford
Description: CR 75 E **Latitude:** 40 26 57.22707 **Longitude:** -85 21 20.65245
Drainage: 12.075 **Site Number:** 14T-140

SiteID: WMI-03-0008 **Sample Date:** 04/16/2014 **IDEM Sample #:** AB16195
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	92.5 %		ASTM D888-09(C)
DO	11.59 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	513 umho/cm		SM2510B
Temperature	5.65 °C		SM2550B(2)
Turbidity (Hach)	32.1 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 3011200	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	1	SM2320B
Chloride	27 mg/L	6	EPA 300.0
Fluoride	0.2 mg/L	0.1	SM4500F(-)-C
Solids, Suspended Total, (TSS)	20 mg/L	10	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	37 mg/L	15	EPA 300.0

Lab ID # 3011201	Result	Reporting Limit	Method
Hardness (as CaCO3)	230 mg/L	0.66	SM2340B
Calcium (Total)	65 mg/L	0.1	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7

Lab ID # 3011202	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.3 mg/L	0.1	SM4500NH3-D

Lab ID # 3011203	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.2

Lab ID # 3011204	Result	Reporting Limit	Method
Phosphorus, Total	0.24 mg/L	0.05	SM4500P-E

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Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
3011205	TOC	9 mg/L	0.5	SM5310C
AA14531	COD	35 mg/L	10	EPA 410.4
	TKN	1.5 mg/L	0.3	SM4500N(Org)-B
AB16195	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WMI-03-0008 **Sample Date:** 04/23/2014 **IDEM Sample #:** AB16439
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #		<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	83.5 %		ASTM D888-09(C)
	DO	9.58 mg/L		ASTM D888-09(C)
	pH (Field)	7.67 SU		EPA 150.2
	Specific Conductance (Field)	543 umho/cm		SM2510B
	Temperature	8.35 °C		SM2550B(2)
	Turbidity (Hach)	15 NTU		EPA 180.1
	Air Temp	2 Lookup		Observation
	Sky Conditions	1 Lookup		Observation
	Wind Direction	27 Lookup		Observation
	Wind Strength	1 Lookup		Observation
AB16439	Coliforms (Total)	5475 MPN/100mL	10	SM9223B
	E. coli	160.7 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0008 Sample Date: 04/30/2014 IDEM Sample #: AB16511
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	79.1 %		ASTM D888-09(C)
DO	8.6 mg/L		ASTM D888-09(C)
pH (Field)	7.49 SU		EPA 150.2
Specific Conductance (Field)	438 umho/cm		SM2510B
Temperature	11.36 °C		SM2550B(2)
Turbidity (Hach)	76.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16511			
E. coli	1203.3 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB16511a			
Coliforms (Total)	19863 MPN/100mL	10	SM9223B

SiteID: WMI-03-0008 Sample Date: 05/07/2014 IDEM Sample #: AB16830
 Water Flow Type: Glide Water Appearance: Murky Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	72.8 %		ASTM D888-09(C)
DO	7.76 mg/L		ASTM D888-09(C)
pH (Field)	7.48 SU		EPA 150.2
Specific Conductance (Field)	610 umho/cm		SM2510B
Temperature	12.28 °C		SM2550B(2)
Turbidity (Hach)	16.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB16830			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	148.3 MPN/100mL	1	SM9223B

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SiteID: WMI-03-0008 **Sample Date:** 05/14/2014 **IDEM Sample #:** AB16963
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	68.9 %	ASTM D888-09(C)
	DO	7 mg/L	ASTM D888-09(C)
	pH (Field)	7.08 SU	EPA 150.2
	Specific Conductance (Field)	382 umho/cm	SM2510B
	Temperature	14.64 °C	SM2550B(2)
	Turbidity (Hach)	205 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	0 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method
3027269	Alkalinity (as CaCO3)	92 mg/L	1 SM2320B
	Chloride	22 mg/L	6 EPA 300.0
	Solids, Suspended Total, (TSS)	89 mg/L	10 SM2540D
	Solids, Total (TS)	420 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	300 mg/L	10 SM2540C
	Sulfate	30 mg/L	15 EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3027270	Hardness (as CaCO3)	170 mg/L	0.66 SM2340B
	Calcium (Total)	48 mg/L	0.1 EPA 200.7
	Magnesium (Total)	12 mg/L	0.1 EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3027271	Nitrogen, Ammonia	0.8 mg/L	0.1 SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3027272	Nitrogen, Nitrate+Nitrite	6 mg/L	0.1 EPA 353.2

Lab ID #	Result	Reporting Limit	Method
3027273	Phosphorus, Total	0.73 mg/L	0.05 SM4500P-E

Lab ID #	Result	Reporting Limit	Method
3027274	TOC	18 mg/L	0.5 SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA17839			
COD	68 mg/L	10	EPA 410.4
TKN	2.4 mg/L	0.3	SM4500N(Org)-B
AB16963a			
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-03-0008 **Sample Date:** 06/11/2014 **IDEM Sample #:** AB17391
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	71.5 %		ASTM D888-09(C)
DO	6.7 mg/L		ASTM D888-09(C)
pH (Field)	7.19 SU		EPA 150.2
Specific Conductance (Field)	425 umho/cm		SM2510B
Temperature	18.25 °C		SM2550B(2)
Turbidity (Hach)	56.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3042665			
Alkalinity (as CaCO3)	140 mg/L	1	SM2320B
Chloride	20 mg/L	2	EPA 300.0
Solids, Suspended Total, (TSS)	28 mg/L	10	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	31 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3042666			
Hardness (as CaCO3)	210 mg/L	0.66	SM2340B
Calcium (Total)	59 mg/L	0.1	EPA 200.7
Magnesium (Total)	15 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3042667			
Nitrogen, Ammonia	0.4 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3042668			
Nitrogen, Nitrate+Nitrite	5.8 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3042669	Phosphorus, Total	0.3 mg/L	0.05	SM4500P-E
3042670	TOC	11 mg/L	0.5	SM5310C
AA20572	COD	22 mg/L	10	EPA 410.4
	TKN	2 mg/L	0.3	SM4500N(Org)-B
AB17391	E. coli	866.4 MPN/100mL	1	SM9223B
AB17391a	Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: WMI-03-0008 **Sample Date:** 07/09/2014 **IDEM Sample #:** AB17565
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
	% Sat	54.1 %	ASTM D888-09(C)
	DO	4.87 mg/L	ASTM D888-09(C)
	pH (Field)	7.51 SU	EPA 150.2
	Specific Conductance (Field)	797 umho/cm	SM2510B
	Temperature	20.47 °C	SM2550B(2)
	Turbidity (Hach)	17.1 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #	Result	Reporting Limit	Method	
3060276	Alkalinity (as CaCO3)	270 mg/L	1	SM2320B
	Chloride	60 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
	Solids, Total (TS)	520 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	500 mg/L	10	SM2540C
	Sulfate	61 mg/L	5	EPA 300.0

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Lab ID #	Result	Reporting Limit	Method	
3060277	Hardness (as CaCO3) Calcium (Total) Magnesium (Total)	330 mg/L 90 mg/L 25 mg/L	0.66 0.1 0.1	SM2340B EPA 200.7 EPA 200.7
3060278	Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D
3060279	Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.2
3060280	Phosphorus, Total	0.22 mg/L	0.05	SM4500P-E
3060281	TOC	11 mg/L	0.5	SM5310C
AA22956	COD TKN	26 mg/L 1.3 mg/L	10 0.3	EPA 410.4 SM4500N(Org)-B
AB17565	Coliforms (Total) E. coli	> 2419.6 MPN/100mL 298.7 MPN/100mL	2419.6 1	SM9223B SM9223B

SiteID: WMI-03-0008 **Sample Date:** 07/16/2014 **IDEM Sample #:** AB18369
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Q6 Turb: 14.5 NTU

Lab ID #	Result	Reporting Limit	Method
	% Sat	35.6 %	SM4500-OG
	DO	3.24 mg/L	SM4500-OG
	pH (Field)	7.58 SU	EPA 150.2
	Specific Conductance (Field)	802 umho/cm	SM2510B
	Temperature	18.49 °C	SM2550B(2)
	Turbidity	14.5 NTU	SM2130B Mod
	Air Temp	4 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

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SiteID: WMI-03-0008 Sample Date: 08/20/2014 IDEM Sample #: AB18753
 Water Flow Type: Glide Water Appearance: Clear Water Depth: Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed %: 0-20%
 Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	42.8 %		ASTM D888-09(C)
DO	3.77 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	985 umho/cm		SM2510B
Temperature	21.55 °C		SM2550B(2)
Turbidity (Hach)	10.05 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # 3087310	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	290 mg/L	1	SM2320B
Chloride	64 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	< 10 mg/L	10	SM2540D
Solids, Total (TS)	580 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	560 mg/L	10	SM2540C
Sulfate	90 mg/L	25	EPA 300.0
Lab ID # 3087311	Result	Reporting Limit	Method
Hardness (as CaCO3)	370 mg/L	0.66	SM2340B
Calcium (Total)	92 mg/L	0.1	EPA 200.7
Magnesium (Total)	33 mg/L	0.1	EPA 200.7
Lab ID # 3087312	Result	Reporting Limit	Method
Nitrogen, Ammonia	0.2 mg/L	0.1	SM4500NH3-D
Lab ID # 3087313	Result	Reporting Limit	Method
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.2
Lab ID # 3087314	Result	Reporting Limit	Method
Phosphorus, Total	0.22 mg/L	0.05	SM4500P-E
Lab ID # 3087315	Result	Reporting Limit	Method
TOC	8.7 mg/L	0.5	SM5310C

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Lab ID #	Result	Reporting Limit	Method
AA25818			
COD	28 mg/L	10	EPA 410.4
TKN	0.71 mg/L	0.3	SM4500N(Org)-B
AB18753			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	290.9 MPN/100mL	1	SM9223B

SiteID: WMI-03-0008 **Sample Date:** 09/17/2014 **IDEM Sample #:** AB19068
Water Flow Type Run **Water Appearance** Other **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Water color stained brown with tanning.

Lab ID #	Result	Reporting Limit	Method
% Sat	21 %		ASTM D888-09(C)
DO	2.21 mg/L		ASTM D888-09(C)
pH (Field)	7.31 SU		EPA 150.2
Specific Conductance (Field)	391 umho/cm		SM2510B
Temperature	13.39 °C		SM2550B(2)
Turbidity (Hach)	8.23 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
3105708			
Alkalinity (as CaCO3)	150 mg/L	1	SM2320B
Chloride	11 mg/L	10	EPA 300.0
Solids, Suspended Total, (TSS)	10 mg/L	10	SM2540D
Solids, Total (TS)	230 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 300.0

Lab ID #	Result	Reporting Limit	Method
3105709			
Hardness (as CaCO3)	170 mg/L	0.66	SM2340B
Calcium (Total)	49 mg/L	0.1	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7

Lab ID #	Result	Reporting Limit	Method
3105710			
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-D

Lab ID #	Result	Reporting Limit	Method
3105711			
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.2

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Lab ID #	Result	Reporting Limit	Method	
3105712	Phosphorus, Total	0.5 mg/L	0.05	SM4500P-E
3105713	TOC	15 mg/L	0.5	SM5310C
AA28066	COD	42 mg/L	10	EPA 410.4
	TKN	1.6 mg/L	0.3	SM4500N(Org)-B
AB19068	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
	E. coli	98.5 MPN/100mL	1	SM9223B

SiteID: WMI-03-0008 **Sample Date:** 10/29/2014 **IDEM Sample #:** AB19251
Water Flow Type Glide **Water Appearance** Other **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Stream had a red tint.

Lab ID #	Result	Reporting Limit	Method	
	% Sat	52 %	ASTM D888-09(C)	
	DO	5.94 mg/L	ASTM D888-09(C)	
	pH (Field)	7.21 SU	EPA 150.2	
	Specific Conductance (Field)	626 umho/cm	SM2510B	
	Temperature	9.37 °C	SM2550B(2)	
	Turbidity (Hach)	30.4 NTU	EPA 180.1	
	Air Temp	3 Lookup	Observation	
	Sky Conditions	1 Lookup	Observation	
	Wind Direction	27 Lookup	Observation	
	Wind Strength	3 Lookup	Observation	
3130640	Alkalinity (as CaCO3)	230 mg/L	1	SM2320B
	Chloride	31 mg/L	10	EPA 300.0
	Solids, Suspended Total, (TSS)	25 mg/L	10	SM2540D
	Solids, Total (TS)	440 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
	Sulfate	50 mg/L	25	EPA 300.0
3130641	Hardness (as CaCO3)	280 mg/L	0.66	SM2340B
	Calcium (Total)	80 mg/L	0.1	EPA 200.7
	Magnesium (Total)	19 mg/L	0.1	EPA 200.7

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Lab ID #	Result	Reporting Limit	Method
3130642	Nitrogen, Ammonia 0.4 mg/L	0.1	SM4500NH3-D
3130643	Nitrogen, Nitrate+Nitrite 0.2 mg/L	0.1	EPA 353.2
3130644	Phosphorus, Total 0.57 mg/L	0.05	SM4500P-E
3130645	TOC 30 mg/L	2.5	SM5310C
AA31641	COD 62 mg/L	10	EPA 410.4
	TKN 3.1 mg/L	0.3	SM4500N(Org)-B
AB19251	E. coli 193.5 MPN/100mL	1	SM9223B
AB19251a	Coliforms (Total) 24196 MPN/100mL	10	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	