

Indiana Department of Environmental Management

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM090-0003 **USGS Hydrologic Unit:** 051202070706
Stream Name: Vernon Fork Muscatatuck River **County:** Jackson
Description: CR 600 South **Latitude:** 38 47 36.72884 **Longitude:** -85 53 2.67155
Drainage: 391.167 **Site Number:** 21T-001

SiteID: WEM090-0003 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48095
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 #:	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	59.2 %		ASTM D888-09(C)
DO	5.15 mg/L		ASTM D888-09(C)
pH (Field)	7.56 SU		EPA 150.2
Specific Conductance (Field)	411.6 umho/cm		SM2510B
Temperature	22.4 °C		SM2550B(2)
Turbidity (Hach)	28.8 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 #: 500-203424-22	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	13 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	36 mg/L	5	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	16 mg/L	0.4	EPA 300.0
Calcium (Total)	57 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	20 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.38 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
TKN	0.44 mg/L	0.4	SM4500N(Org)-D
TOC	3.6 mg/L	1	SM5310C

Lab ID #: AB48095	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	81.3 MPN/100mL	1	SM9223B

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

SiteID: WEM090-0003 **Sample Date:** 8/24/2021 **IDEM Sample #:** AB47653
Water Flow Type Pool **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	58.4 %		ASTM D888-09(C)
DO	4.76 mg/L		ASTM D888-09(C)
pH (Field)	7.56 SU		EPA 150.2
Specific Conductance (Field)	435 umho/cm		SM2510B
Temperature	25.9 °C		SM2550B(2)
Turbidity (Hach)	21.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM090-0003 **Sample Date:** 9/15/2021 **IDEM Sample #:** AB48388
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	65.3 %		ASTM D888-09(C)
DO	5.55 mg/L		ASTM D888-09(C)
pH (Field)	7.43 SU		EPA 150.2
Specific Conductance (Field)	348.3 umho/cm		SM2510B
Temperature	23.2 °C		SM2550B(2)
Turbidity (Hach)	21.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID #: 500-205399-21	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	5	SM2320B
Chloride	17 mg/L	1	EPA 300.0
Hardness (as CaCO3)	150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	24 mg/L	5	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	140 mg/L	10	SM2540C
Sulfate	19 mg/L	0.4	EPA 300.0
Calcium (Total)	44 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.1	EPA 200.7
COD	7.9 mg/L	10	SM5220C
Nitrogen, Ammonia	0.14 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.49 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
TKN	0.56 mg/L	0.4	SM4500N(Org)-D
TOC	4.1 mg/L	1	SM5310C

Lab ID #: AB48388	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	214.2 MPN/100mL	1	SM9223B

SiteID: WEM090-0003 **Sample Date:** 10/13/2021 **IDEM Sample #:** AB48868
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	73.9 %		ASTM D888-09(C)
DO	6.75 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	381.1 umho/cm		SM2510B
Temperature	19.8 °C		SM2550B(2)
Turbidity (Hach)	16.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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Lab ID #: 500-206919-22	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	22 mg/L	1	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	17 mg/L	5	SM2540D
Solids, Total (TS)	300 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	200 mg/L	10	SM2540C
Sulfate	25 mg/L	1	EPA 300.0
Calcium (Total)	47 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.1	EPA 200.7
COD	16 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.27 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
TKN	0.54 mg/L	0.4	SM4500N(Org)-D
TOC	5.8 mg/L	1	SM5310C

Lab ID #: AB48868	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	201.4 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM-07-0010 **USGS Hydrologic Unit:** 051202070706
Stream Name: Grassy Creek **County:** Jackson
Description: CR 600 **Latitude:** 38 47 38.57330 **Longitude:** -85 52 9.53353
Drainage: 12.633 **Site Number:** 21T-002

SiteID: WEM-07-0010 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48096
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: slight film/sheen on water; murky green/gray color

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	68.7 %		ASTM D888-09(C)
DO	6.52 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	886 umho/cm		SM2510B
Temperature	18 °C		SM2550B(2)
Turbidity (Hach)	9.1 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-203424-23	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	310 mg/L	5	SM2320B
Chloride	56 mg/L	5	EPA 300.0
Hardness (as CaCO3)	360 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	7.4 mg/L	5	SM2540D
Solids, Total (TS)	740 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	750 mg/L	10	SM2540C
Sulfate	63 mg/L	5	EPA 300.0
Calcium (Total)	99 mg/L	0.2	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7
COD	12 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	2.2 mg/L	0.25	SM4500P-E
TKN	0.26 mg/L	0.4	SM4500N(Org)-D
TOC	2.1 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48096	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	206.4 MPN/100mL	1	SM9223B

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SiteID: WEM-07-0010 **Sample Date:** 8/24/2021 **IDEM Sample #:** AB47654
Water Flow Type Pool **Water Appearance** Green **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	70.4 %		ASTM D888-09(C)
DO	6.25 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	901 umho/cm		SM2510B
Temperature	21 °C		SM2550B(2)
Turbidity (Hach)	22.5 NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM-07-0010 **Sample Date:** 9/15/2021 **IDEM Sample #:** AB48389
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: barley flowing (but deep), excessive duckweed

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	75.3 %		ASTM D888-09(C)
DO	6.84 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	907 umho/cm		SM2510B
Temperature	19.5 °C		SM2550B(2)
Turbidity (Hach)	4.22 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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Lab ID #: 500-205399-22

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	320 mg/L	5	SM2320B
Chloride	82 mg/L	5	EPA 300.0
Hardness (as CaCO3)	360 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2.4 mg/L	5	SM2540D
Solids, Total (TS)	810 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	500 mg/L	10	SM2540C
Sulfate	59 mg/L	5	EPA 300.0
Calcium (Total)	99 mg/L	0.2	EPA 200.7
Magnesium (Total)	28 mg/L	0.1	EPA 200.7
COD	< 10 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	2.9 mg/L	0.25	SM4500P-E
TKN	0.55 mg/L	0.4	SM4500N(Org)-D
TOC	2.6 mg/L	1	SM5310C

Lab ID #: AB48389

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WEM-07-0010

Sample Date: 10/13/2021

IDEM Sample #: AB48869

Water Flow Type Glide

Water Appearance Murky

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments: very stagnant with duckweed, wetland-like

Lab ID #:

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	51.7 %		ASTM D888-09(C)
DO	4.89 mg/L		ASTM D888-09(C)
pH (Field)	7.69 SU		EPA 150.2
Specific Conductance (Field)	881 umho/cm		SM2510B
Temperature	18.2 °C		SM2550B(2)
Turbidity (Hach)	4.22 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

**Indiana Department of Environmental Management
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Lab ID #: 500-206919-23	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	5	SM2320B
Chloride	97 mg/L	5	EPA 300.0
Hardness (as CaCO3)	330 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2.4 mg/L	5	SM2540D
Solids, Total (TS)	620 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	510 mg/L	10	SM2540C
Sulfate	76 mg/L	5	EPA 300.0
Calcium (Total)	91 mg/L	0.2	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7
COD	15 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	2.8 mg/L	0.25	SM4500P-E
TKN	0.54 mg/L	0.4	SM4500N(Org)-D
TOC	3.9 mg/L	1	SM5310C

Lab ID #: AB48869	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	58.6 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM090-0008 **USGS Hydrologic Unit:** 051202070706
Stream Name: Vernon Fork Muscatatuck River **County:** Jackson
Description: CR 400 South **Latitude:** 38 49 19.42466 **Longitude:** -85 53 3.10163
Drainage: 382.401 **Site Number:** 21T-003

SiteID: WEM090-0008 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48094
Water Flow Type Stagnant **Water Appearance** Black **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: water black with an oily sheen. lots of corn debris in water. bad smell

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	5 %		ASTM D888-09(C)
DO	0.41 mg/L		ASTM D888-09(C)
pH (Field)	6.78 SU		EPA 150.2
Specific Conductance (Field)	430.4 umho/cm		SM2510B
Temperature	20.5 °C		SM2550B(2)
Turbidity (Hach)	31.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-203424-21	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	27 mg/L	1	EPA 300.0
Hardness (as CaCO3)	160 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	12 mg/L	5	SM2540D
Solids, Total (TS)	300 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	6 mg/L	0.2	EPA 300.0
Calcium (Total)	43 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	35 mg/L	10	SM5220C
Nitrogen, Ammonia	0.52 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.46 mg/L	0.05	SM4500P-E
TKN	1.1 mg/L	0.4	SM4500N(Org)-D
TOC	9.9 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48094	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	365.4 MPN/100mL	1	SM9223B

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

SiteID: WEM090-0008

Sample Date: 9/15/2021

IDEM Sample #: AB48387

Water Flow Type Stagnant

Water Appearance Black

Water Depth

Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments: Water still nearly black, excessive duckweed and decaying corn debris. Cattle have access to stream.

Lab ID #:	Result	Reporting Limit	Method
% Sat	4.5 %		ASTM D888-09(C)
DO	0.42 mg/L		ASTM D888-09(C)
pH (Field)	6.43 SU		EPA 150.2
Specific Conductance (Field)	532 umho/cm		SM2510B
Temperature	18.9 °C		SM2550B(2)
Turbidity (Hach)	22.8 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 #: 500-205399-20	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	36 mg/L	2	EPA 300.0
Hardness (as CaCO3)	160 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9 mg/L	5	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	7.2 mg/L	0.2	EPA 300.0
Calcium (Total)	41 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	11 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.22 mg/L	0.05	SM4500P-E
TKN	0.92 mg/L	0.4	SM4500N(Org)-D
TOC	6.5 mg/L	1	SM5310C
Lab ID #: AB48387	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	365.4 MPN/100mL	1	SM9223B

Indiana Department of Environmental Management

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM090-0008

Sample Date: 10/13/2021

IDEM Sample #: AB48867

Water Flow Type Stagnant

Water Appearance Brown

Water Depth Algae?

Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: water still very stagnant with a sheen. lots of woody and corn debris and duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	5.6 %		ASTM D888-09(C)
DO	0.53 mg/L		ASTM D888-09(C)
pH (Field)	6.81 SU		EPA 150.2
Specific Conductance (Field)	474.5 umho/cm		SM2510B
Temperature	18.1 °C		SM2550B(2)
Turbidity (Hach)	26.8 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 #: 500-206919-21	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	34 mg/L	2	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	10 mg/L	5	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
Sulfate	9.3 mg/L	0.2	EPA 300.0
Calcium (Total)	48 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	28 mg/L	10	SM5220C
Nitrogen, Ammonia	0.49 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.46 mg/L	0.05	SM4500P-E
TKN	0.98 mg/L	0.4	SM4500N(Org)-D
TOC	8.1 mg/L	1	SM5310C

Lab ID #: AB48867	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	96 MPN/100mL	1	SM9223B

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	

Indiana Department of Environmental Management

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM-07-0015 **USGS Hydrologic Unit:** 051202070706
Stream Name: John McDonald Ditch **County:** Jackson
Description: CR 125 South **Latitude:** 38 51 46.92645 **Longitude:** -85 50 44.12462
Drainage: 4.799 **Site Number:** 21T-005

SiteID: WEM-07-0015 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48093
Water Flow Type: Glide **Water Appearance:** Clear **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: very stagnant/slow moving. lots of aquatic macrophytes..area very wetland-like.

Lab ID #:	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	37.9 %		ASTM D888-09(C)
DO	3.53 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	495.4 umho/cm		SM2510B
Temperature	19 °C		SM2550B(2)
Turbidity (Hach)	6.87 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 #: 500-203424-20	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	220 mg/L	5	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Hardness (as CaCO3)	230 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5 mg/L	5	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
Sulfate	18 mg/L	2	EPA 300.0
Calcium (Total)	64 mg/L	0.2	EPA 200.7
Magnesium (Total)	16 mg/L	0.1	EPA 200.7
COD	8.2 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.38 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
TKN	0.31 mg/L	0.4	SM4500N(Org)-D
TOC	3.2 mg/L	1	SM5310C

Lab ID #: AB48093	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

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

SiteID: WEM-07-0015 Sample Date: 8/24/2021 IDEM Sample #: AB47657
 Water Flow Type Stagnant Water Appearance Sheen 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	6.17 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	520 umho/cm		SM2510B
Temperature	25.5 °C		SM2550B(2)
Turbidity (Hach)	4.4 NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM-07-0015 Sample Date: 9/15/2021 IDEM Sample #: AB48386
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: stagnant, duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	39.1 %		ASTM D888-09(C)
DO	3.48 mg/L		ASTM D888-09(C)
pH (Field)	7.46 SU		EPA 150.2
Specific Conductance (Field)	506 umho/cm		SM2510B
Temperature	21.6 °C		SM2550B(2)
Turbidity (Hach)	6.97 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID #: 500-205399-19	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	5	SM2320B
Chloride	16 mg/L	1	EPA 300.0
Hardness (as CaCO3)	240 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.6 mg/L	5	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	15 mg/L	1	EPA 300.0
Calcium (Total)	67 mg/L	0.2	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7
COD	11 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.16 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E
TKN	0.59 mg/L	0.4	SM4500N(Org)-D
TOC	3.8 mg/L	1	SM5310C

Lab ID #: AB48386	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	275.5 MPN/100mL	1	SM9223B

SiteID: WEM-07-0015 **Sample Date:** 10/13/2021 **IDEM Sample #:** AB48866
Water Flow Type Glike **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: stagnant (swamp-like); lots of duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	16 %		ASTM D888-09(C)
DO	1.56 mg/L		ASTM D888-09(C)
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	521 umho/cm		SM2510B
Temperature	17.9 °C		SM2550B(2)
Turbidity (Hach)	4.93 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID #: 500-206919-20	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	5	SM2320B
Chloride	22 mg/L	1	EPA 300.0
Hardness (as CaCO3)	240 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	5	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	12 mg/L	1	EPA 300.0
Calcium (Total)	67 mg/L	0.2	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7
COD	25 mg/L	10	SM5220C
Nitrogen, Ammonia	0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.25 mg/L	0.05	SM4500P-E
TKN	0.91 mg/L	0.4	SM4500N(Org)-D
TOC	6.6 mg/L	1	SM5310C

Lab ID #: AB48866	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 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
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WEM-07-0021 **USGS Hydrologic Unit:** 051202070705
Stream Name: Tea Creek **County:** Jennings
Description: CR 650 South **Latitude:** 38 53 17.94956 **Longitude:** -85 41 20.64590
Drainage: 4.617 **Site Number:** 21T-006

SiteID: WEM-07-0021 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48083
Water Flow Type Riffle **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	95.4 %		ASTM D888-09(C)
DO	8.7 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	390.7 umho/cm		SM2510B
Temperature	19.9 °C		SM2550B(2)
Turbidity (Hach)	2.78 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-203424-10	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	8.2 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2 mg/L	5	SM2540D
Solids, Total (TS)	280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
Sulfate	9 mg/L	0.2	EPA 300.0
Calcium (Total)	58 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	14 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.12 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.05 mg/L	0.05	SM4500P-E
TKN	0.64 mg/L	0.4	SM4500N(Org)-D
TOC	2.6 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48083	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	107.1 MPN/100mL	1	SM9223B

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

SiteID: WEM-07-0021 **Sample Date:** 8/16/2021 **IDEM Sample #:** AB47658
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Becoming isolated pools

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	132.1 %		ASTM D888-09(C)
DO	11.36 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	396.7 umho/cm		SM2510B
Temperature	22.5 °C		SM2550B(2)
Turbidity (Hach)	2.22 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM-07-0021 **Sample Date:** 9/14/2021 **IDEM Sample #:** AB48376
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 pools

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	52.3 %		ASTM D888-09(C)
DO	4.59 mg/L		ASTM D888-09(C)
pH (Field)	7.65 SU		EPA 150.2
Specific Conductance (Field)	436 umho/cm		SM2510B
Temperature	21.8 °C		SM2550B(2)
Turbidity (Hach)	2.76 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-205399-11

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	220 mg/L	5	SM2320B
Chloride	8.3 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	230 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	8.3	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 mg/L	10	SM2540C
Sulfate	11 mg/L	0.4	EPA 300.0
Calcium (Total)	70 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	13 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.044 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.057 mg/L	0.05	SM4500P-E
TKN	0.67 mg/L	0.4	SM4500N(Org)-D
TOC	3.8 mg/L	1	SM5310C

Lab ID #: AB48376

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

SiteID: WEM-07-0021

Sample Date: 10/12/2021

IDEM Sample #: AB48856

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 pools

Lab ID #:

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	59.7 %		ASTM D888-09(C)
DO	5.5 mg/L		ASTM D888-09(C)
pH (Field)	7.29 SU		EPA 150.2
Specific Conductance (Field)	471.5 umho/cm		SM2510B
Temperature	19.4 °C		SM2550B(2)
Turbidity (Hach)	2.39 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-11	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	5	SM2320B
Chloride	10 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	230 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	< 5 mg/L	5	SM2540D
Solids, Total (TS)	310 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	8.8 mg/L	0.4	EPA 300.0
Calcium (Total)	70 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	21 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
TKN	0.49 mg/L	0.4	SM4500N(Org)-D
TOC	6.8 mg/L	1	SM5310C

Lab ID #: AB48856	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	90.8 MPN/100mL	1	SM9223B

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
2 - Scattered	9 - Snow	9 - East (90 Degrees)	1 - Light
3 - Partly	10 - Sleet	18 - South (180 Degrees)	2 - Mod./Light
4 - Cloudy		27 - West (270 Degrees)	3 - Moderate
5 - Mist			4 - Mod./Strong
6 - Fog			5 - Strong
7 - Shower			6 - Gale
			1 - < 32
			2 - 33-45
			3 - 46-60
			4 - 61-75
			5 - 76-85
			6 - > 86

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

SiteID: WEM070-0029 USGS Hydrologic Unit: 051202070705
 Stream Name: Tea Creek County: Jennings
 Description: CR 650 West Latitude: 38 53 9.76552 Longitude: -85 43 52.69889
 Drainage: 10.632 Site Number: 21T-007

SiteID: WEM070-0029 Sample Date: 8/3/2021 IDEM Sample #: AB48082
 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	75.3 %		ASTM D888-09(C)
DO	6.68 mg/L		ASTM D888-09(C)
pH (Field)	7.73 SU		EPA 150.2
Specific Conductance (Field)	454.4 umho/cm		SM2510B
Temperature	21.1 °C		SM2550B(2)
Turbidity (Hach)	9.14 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 #: 500-203424-9	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	5	SM2320B
Chloride	7.7 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	230 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5.2 mg/L	5	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	13 mg/L	0.4	EPA 300.0
Calcium (Total)	69 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	12 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.25 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	< 0.05 mg/L	0.05	SM4500P-E
TKN	0.33 mg/L	0.4	SM4500N(Org)-D
TOC	2.2 mg/L	1	SM5310C

Lab ID #: AB48082	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	770.1 MPN/100mL	1	SM9223B

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

SiteID: WEM070-0029 **Sample Date:** 8/17/2021 **IDEM Sample #:** AB47659
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Becoming isolated pools

Lab ID #:	Result	Reporting Limit	Method
% Sat	54 %		ASTM D888-09(C)
DO	4.64 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	467.7 umho/cm		SM2510B
Temperature	23.6 °C		SM2550B(2)
Turbidity (Hach)	4.58 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM070-0029 **Sample Date:** 9/14/2021 **IDEM Sample #:** AB48375
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	62.6 %		ASTM D888-09(C)
DO	5.36 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	429.7 umho/cm		SM2510B
Temperature	22.9 °C		SM2550B(2)
Turbidity (Hach)	3.64 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-205399-10	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	5	SM2320B
Chloride	8.9 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3.6 mg/L	5	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
Sulfate	6.6 mg/L	0.4	EPA 300.0
Calcium (Total)	62 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	8.9 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.034 mg/L	0.05	SM4500P-E
TKN	0.57 mg/L	0.4	SM4500N(Org)-D
TOC	3.3 mg/L	1	SM5310C

Lab ID #: AB48375	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	45.5 MPN/100mL	1	SM9223B

SiteID: WEM070-0029 **Sample Date:** 10/12/2021 **IDEM Sample #:** AB48855
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: lots of leaf debris and low flow conditions

Lab ID #:	Result	Reporting Limit	Method
% Sat	28.5 %		ASTM D888-09(C)
DO	2.6 mg/L		ASTM D888-09(C)
pH (Field)	7.23 SU		EPA 150.2
Specific Conductance (Field)	420.8 umho/cm		SM2510B
Temperature	19.9 °C		SM2550B(2)
Turbidity (Hach)	4.75 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-10	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	5	SM2320B
Chloride	9.5 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3.4 mg/L	5	SM2540D
Solids, Total (TS)	280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	6.6 mg/L	0.2	EPA 300.0
Calcium (Total)	59 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	18 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.081 mg/L	0.05	SM4500P-E
TKN	2.2 mg/L	0.4	SM4500N(Org)-D
TOC	5.6 mg/L	1	SM5310C

Lab ID #: AB48855	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	224.7 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM070-0039 **USGS Hydrologic Unit:** 051202070705
Stream Name: Vernon Fork Muscatatuck River **County:** Jennings
Description: CR 500 South **Latitude:** 38 54 39.57440 **Longitude:** -85 43 48.30341
Drainage: 234.158 **Site Number:** 21T-008

SiteID: WEM070-0039 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48102
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	78 %		ASTM D888-09(C)
DO	6.77 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	439 umho/cm		SM2510B
Temperature	22.4 °C		SM2550B(2)
Turbidity (Hach)	20.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-203424-7	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	11 mg/L	2	EPA 300.0
Hardness (as CaCO3)	220 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	23 mg/L	5	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
Sulfate	22 mg/L	2	EPA 300.0
Calcium (Total)	61 mg/L	0.2	EPA 200.7
Magnesium (Total)	16 mg/L	0.1	EPA 200.7
COD	11 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.67 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
TKN	0.47 mg/L	0.4	SM4500N(Org)-D
TOC	2.3 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48102	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	111.2 MPN/100mL	1	SM9223B

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

SiteID: WEM070-0039 Sample Date: 8/17/2021 IDEM Sample #: AB47660
 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	55.3 %		ASTM D888-09(C)
DO	4.67 mg/L		ASTM D888-09(C)
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	476 umho/cm		SM2510B
Temperature	23.9 °C		SM2550B(2)
Turbidity (Hach)	11.6 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: WEM070-0039 Sample Date: 9/14/2021 IDEM Sample #: AB48395
 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	68.4 %		ASTM D888-09(C)
DO	5.74 mg/L		ASTM D888-09(C)
pH (Field)	7.46 SU		EPA 150.2
Specific Conductance (Field)	329.1 umho/cm		SM2510B
Temperature	23.9 °C		SM2550B(2)
Turbidity (Hach)	11 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
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

Lab ID #: 500-205399-8	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	140 mg/L	5	SM2320B
Chloride	8.8 mg/L	1	EPA 300.0
Hardness (as CaCO3)	150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	10 mg/L	5	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	10 mg/L	1	EPA 300.0
Calcium (Total)	45 mg/L	0.2	EPA 200.7
Magnesium (Total)	10 mg/L	0.1	EPA 200.7
COD	< 10 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.16 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.064 mg/L	0.05	SM4500P-E
TKN	0.63 mg/L	0.4	SM4500N(Org)-D
TOC	3.3 mg/L	1	SM5310C

Lab ID #: AB48395	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	172.3 MPN/100mL	1	SM9223B

SiteID: WEM070-0039 **Sample Date:** 10/12/2021 **IDEM Sample #:** AB48875
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	76.1 %		ASTM D888-09(C)
DO	6.81 mg/L		ASTM D888-09(C)
pH (Field)	7.35 SU		EPA 150.2
Specific Conductance (Field)	393.4 umho/cm		SM2510B
Temperature	20.8 °C		SM2550B(2)
Turbidity (Hach)	9.21 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-8	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	16 mg/L	2	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6.8 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	200 mg/L	10	SM2540C
Sulfate	24 mg/L	2	EPA 300.0
Calcium (Total)	51 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	16 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.78 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.074 mg/L	0.05	SM4500P-E
TKN	0.49 mg/L	0.4	SM4500N(Org)-D
TOC	3.9 mg/L	1	SM5310C

Lab ID #: AB48875	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	160.7 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

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM070-0020 **USGS Hydrologic Unit:** 051202070705
Stream Name: Vernon Fork Muscatatuck River **County:** Jackson
Description: US 31 **Latitude:** 38 54 21.96418 **Longitude:** -85 49 15.82271
Drainage: 292.076 **Site Number:** 21T-009

SiteID: WEM070-0020 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48090
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	52.8 %		ASTM D888-09(C)
DO	4.51 mg/L		ASTM D888-09(C)
pH (Field)	7.4 SU		EPA 150.2
Specific Conductance (Field)	426.7 umho/cm		SM2510B
Temperature	22.9 °C		SM2550B(2)
Turbidity (Hach)	24 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 #: 500-203424-18	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	11 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	26 mg/L	5	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	23 mg/L	2	EPA 300.0
Calcium (Total)	60 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	14 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.45 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.072 mg/L	0.05	SM4500P-E
TKN	0.49 mg/L	0.4	SM4500N(Org)-D
TOC	3 mg/L	1	SM5310C

Lab ID #: AB48090	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	42.2 MPN/100mL	1	SM9223B

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

SiteID: WEM070-0020 **Sample Date:** 8/18/2021 **IDEM Sample #:** AB47661
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Riffle is riprap DS of bridge, live mussels seen at site, crayfish appears to be *F. rusticus* based on coloration seen at site; readings taken DS of bridge and riffle in run.

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	47.7 %		ASTM D888-09(C)
DO	4 mg/L		ASTM D888-09(C)
pH (Field)	7.33 SU		EPA 150.2
Specific Conductance (Field)	435 umho/cm		SM2510B
Temperature	24.3 °C		SM2550B(2)
Turbidity (Hach)	15.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM070-0020 **Sample Date:** 9/15/2021 **IDEM Sample #:** AB48383
Water Flow Type Riffle **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	51 %		ASTM D888-09(C)
DO	4.35 mg/L		ASTM D888-09(C)
pH (Field)	7.13 SU		EPA 150.2
Specific Conductance (Field)	337.4 umho/cm		SM2510B
Temperature	23.3 °C		SM2550B(2)
Turbidity (Hach)	14.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-205399-17

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	130 mg/L	5	SM2320B
Chloride	13 mg/L	1	EPA 300.0
Hardness (as CaCO3)	150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	14 mg/L	5	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	20 mg/L	1	EPA 300.0
Calcium (Total)	43 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.1	EPA 200.7
COD	12 mg/L	10	SM5220C
Nitrogen, Ammonia	0.11 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.17 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.087 mg/L	0.05	SM4500P-E
TKN	0.66 mg/L	0.4	SM4500N(Org)-D
TOC	4.1 mg/L	1	SM5310C

Lab ID #: AB48383

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	172.5 MPN/100mL	1	SM9223B

SiteID: WEM070-0020

Sample Date: 10/13/2021

IDEM Sample #: AB48863

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	61 %		ASTM D888-09(C)
DO	5.58 mg/L		ASTM D888-09(C)
pH (Field)	7.48 SU		EPA 150.2
Specific Conductance (Field)	383.7 umho/cm		SM2510B
Temperature	19.7 °C		SM2550B(2)
Turbidity (Hach)	16.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-18	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	16 mg/L	1	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	15 mg/L	5	SM2540D
Solids, Total (TS)	280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	25 mg/L	1	EPA 300.0
Calcium (Total)	50 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	17 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.38 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.2 mg/L	0.05	SM4500P-E
TKN	0.53 mg/L	0.4	SM4500N(Org)-D
TOC	4.5 mg/L	1	SM5310C

Lab ID #: AB48863	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	218.7 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM090-0015 **USGS Hydrologic Unit:** 051202070706
Stream Name: Vernon Fork Muscatatuck River **County:** Jackson
Description: CR 50 North **Latitude:** 38 53 18.85460 **Longitude:** -85 51 6.07579
Drainage: 364.501 **Site Number:** 21T-010

SiteID: WEM090-0015 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48091
Water Flow Type: Glide **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	51.3 %		ASTM D888-09(C)
DO	4.42 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	417.8 umho/cm		SM2510B
Temperature	22.5 °C		SM2550B(2)
Turbidity (Hach)	17.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-203424-19	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	13 mg/L	1	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	18 mg/L	5	SM2540D
Solids, Total (TS)	280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	16 mg/L	1	EPA 300.0
Calcium (Total)	57 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	17 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.42 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.044 mg/L	0.05	SM4500P-E
TKN	0.38 mg/L	0.4	SM4500N(Org)-D
TOC	3.4 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48091	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	95.9 MPN/100mL	1	SM9223B

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

SiteID: WEM090-0015 **Sample Date:** 8/24/2021 **IDEM Sample #:** AB46789
Water Flow Type Run **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	55.8 %		ASTM D888-09(C)
DO	4.35 mg/L		ASTM D888-09(C)
pH (Field)	7.34 SU		EPA 150.2
Specific Conductance (Field)	430.8 umho/cm		SM2510B
Temperature	28.2 °C		SM2550B(2)
Turbidity (Hach)	24.7 NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM090-0015 **Sample Date:** 8/30/2021 **IDEM Sample #:** AB47662
Water Flow Type Run **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	42.6 %		ASTM D888-09(C)
DO	3.42 mg/L		ASTM D888-09(C)
pH (Field)	7.39 SU		EPA 150.2
Specific Conductance (Field)	437.5 umho/cm		SM2510B
Temperature	26.5 °C		SM2550B(2)
Turbidity (Hach)	14.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEM090-0015

Sample Date: 9/15/2021

IDEM Sample #: AB48384

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	49 %		ASTM D888-09(C)
DO	4.19 mg/L		ASTM D888-09(C)
pH (Field)	7.19 SU		EPA 150.2
Specific Conductance (Field)	347.9 umho/cm		SM2510B
Temperature	23.6 °C		SM2550B(2)
Turbidity (Hach)	16.3 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 #: 500-205399-18	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	5	SM2320B
Chloride	17 mg/L	1	EPA 300.0
Hardness (as CaCO3)	150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	16 mg/L	5	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	21 mg/L	1	EPA 300.0
Calcium (Total)	44 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.1	EPA 200.7
COD	11 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.24 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.073 mg/L	0.05	SM4500P-E
TKN	0.69 mg/L	0.4	SM4500N(Org)-D
TOC	4.4 mg/L	1	SM5310C
Lab ID #: AB48384	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	290.9 MPN/100mL	1	SM9223B

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

SiteID: WEM090-0015

Sample Date: 10/13/2021

IDEM Sample #: AB48864

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	58.9 %		ASTM D888-09(C)
DO	5.43 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	384 umho/cm		SM2510B
Temperature	19.4 °C		SM2550B(2)
Turbidity (Hach)	15.5 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 #: 500-206919-19	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	17 mg/L	1	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	15 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	180 mg/L	10	SM2540C
Sulfate	19 mg/L	1	EPA 300.0
Calcium (Total)	49 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	19 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.25 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E
TKN	0.61 mg/L	0.4	SM4500N(Org)-D
TOC	5.5 mg/L	1	SM5310C

Lab ID #: AB48864	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	166.4 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	

Indiana Department of Environmental Management

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM080-0015 **USGS Hydrologic Unit:** 051202070704
Stream Name: Sandy Branch **County:** Jackson
Description: US 31 **Latitude:** 38 55 52.33966 **Longitude:** -85 50 2.43408
Drainage: 8.07 **Site Number:** 21T-011

SiteID: WEM080-0015 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48089
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	76.7 %		ASTM D888-09(C)
DO	7.16 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	646 umho/cm		SM2510B
Temperature	18.7 °C		SM2550B(2)
Turbidity (Hach)	4.31 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 #: 500-203424-17	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	230 mg/L	5	SM2320B
Chloride	55 mg/L	4	EPA 300.0
Hardness (as CaCO3)	300 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3.8 mg/L	5	SM2540D
Solids, Total (TS)	560 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	500 mg/L	10	SM2540C
Sulfate	34 mg/L	4	EPA 300.0
Calcium (Total)	84 mg/L	0.2	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7
COD	15 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.51 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.071 mg/L	0.05	SM4500P-E
TKN	0.38 mg/L	0.4	SM4500N(Org)-D
TOC	2.3 mg/L	1	SM5310C

Lab ID #: AB48089	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

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

SiteID: WEM080-0015

Sample Date: 9/15/2021

IDEM Sample #: AB48382

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	65 %		ASTM D888-09(C)
DO	5.69 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	647 umho/cm		SM2510B
Temperature	22 °C		SM2550B(2)
Turbidity (Hach)	5.53 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 #: 500-205399-16	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	5	SM2320B
Chloride	57 mg/L	2	EPA 300.0
Hardness (as CaCO3)	290 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	5	SM2540D
Solids, Total (TS)	610 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
Sulfate	32 mg/L	2	EPA 300.0
Calcium (Total)	81 mg/L	0.2	EPA 200.7
Magnesium (Total)	21 mg/L	0.1	EPA 200.7
COD	< 10 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.35 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
TKN	0.61 mg/L	0.4	SM4500N(Org)-D
TOC	2.8 mg/L	1	SM5310C

Lab ID #: AB48382	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

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

SiteID: WEM080-0015

Sample Date: 10/13/2021

IDEM Sample #: AB48862

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	63.9 %		ASTM D888-09(C)
DO	6.16 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	656 umho/cm		SM2510B
Temperature	17.1 °C		SM2550B(2)
Turbidity (Hach)	6.55 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 #: 500-206919-17	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	5	SM2320B
Chloride	55 mg/L	2	EPA 300.0
Hardness (as CaCO3)	280 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3.8 mg/L	5	SM2540D
Solids, Total (TS)	440 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	29 mg/L	2	EPA 300.0
Calcium (Total)	78 mg/L	0.2	EPA 200.7
Magnesium (Total)	20 mg/L	0.1	EPA 200.7
COD	14 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.078 mg/L	0.05	SM4500P-E
TKN	0.85 mg/L	0.4	SM4500N(Org)-D
TOC	3.3 mg/L	1	SM5310C

Lab ID #: AB48862	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	74.9 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

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM080-0014 **USGS Hydrologic Unit:** 051202070704
Stream Name: Mutton Creek Ditch **County:** Jackson
Description: CR 400 North **Latitude:** 38 56 26.63883 **Longitude:** -85 48 56.24634
Drainage: 29.807 **Site Number:** 21T-012

SiteID: WEM080-0014 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48088
Water Flow Type: Glide **Water Appearance:** Brown **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: water very stagnant, slight sheen/film on top; some duckweed present

Lab ID #:	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	28.3 %		ASTM D888-09(C)
DO	2.51 mg/L		ASTM D888-09(C)
pH (Field)	7.22 SU		EPA 150.2
Specific Conductance (Field)	387.9 umho/cm		SM2510B
Temperature	21.1 °C		SM2550B(2)
Turbidity (Hach)	8.66 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 #: 500-203424-16	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	18 mg/L	1	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	8.2 mg/L	5	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	12 mg/L	1	EPA 300.0
Calcium (Total)	47 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	12 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.94 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E
TKN	0.32 mg/L	0.4	SM4500N(Org)-D
TOC	4.2 mg/L	1	SM5310C

Lab ID #: AB48088	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	39.3 MPN/100mL	1	SM9223B

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

SiteID: WEM080-0014 Sample Date: 8/17/2021 IDEM Sample #: AB47664
 Water Flow Type Glide Water Appearance Sheen Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	16.3 %		ASTM D888-09(C)
DO	1.4 mg/L		ASTM D888-09(C)
pH (Field)	7.21 SU		EPA 150.2
Specific Conductance (Field)	405.5 umho/cm		SM2510B
Temperature	23.4 °C		SM2550B(2)
Turbidity (Hach)	8.52 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM080-0014 Sample Date: 9/15/2021 IDEM Sample #: AB48381
 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	5.4 %		ASTM D888-09(C)
DO	0.46 mg/L		ASTM D888-09(C)
pH (Field)	6.96 SU		EPA 150.2
Specific Conductance (Field)	362.8 umho/cm		SM2510B
Temperature	20.8 °C		SM2550B(2)
Turbidity (Hach)	10.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-205399-15	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	5	SM2320B
Chloride	15 mg/L	1	EPA 300.0
Hardness (as CaCO3)	140 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	10 mg/L	7.1	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	8.9 mg/L	0.2	EPA 300.0
Calcium (Total)	40 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.1	EPA 200.7
COD	25 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.05 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.16 mg/L	0.05	SM4500P-E
TKN	0.97 mg/L	0.4	SM4500N(Org)-D
TOC	9.8 mg/L	1	SM5310C

Lab ID #: AB48381	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.1 MPN/100mL	1	SM9223B

SiteID: WEM080-0014 **Sample Date:** 10/13/2021 **IDEM Sample #:** AB48861
Water Flow Type Glike **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: very low flow/stagnant

Lab ID #:	Result	Reporting Limit	Method
% Sat	16.7 %		ASTM D888-09(C)
DO	1.55 mg/L		ASTM D888-09(C)
pH (Field)	7.08 SU		EPA 150.2
Specific Conductance (Field)	384.1 umho/cm		SM2510B
Temperature	19 °C		SM2550B(2)
Turbidity (Hach)	12.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID #: 500-206919-16	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	12 mg/L	1	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	11 mg/L	5	SM2540D
Solids, Total (TS)	280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	180 mg/L	10	SM2540C
Sulfate	9.1 mg/L	1	EPA 300.0
Calcium (Total)	49 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	24 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.45 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.21 mg/L	0.05	SM4500P-E
TKN	0.64 mg/L	0.4	SM4500N(Org)-D
TOC	6.9 mg/L	1	SM5310C

Lab ID #: AB48861	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	235.9 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM-07-0016 **USGS Hydrologic Unit:** 051202070704
Stream Name: Tributary of Mutton Creek **County:** Jackson
Description: CR 700 North **Latitude:** 38 59 2.20225 **Longitude:** -85 49 42.77626
Drainage: 5.117 **Site Number:** 21T-013

SiteID: WEM-07-0016 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48084
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	73.8 %		ASTM D888-09(C)
DO	6.96 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	424.2 umho/cm		SM2510B
Temperature	18.2 °C		SM2550B(2)
Turbidity (Hach)	3.74 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 #: 500-203424-11	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	19 mg/L	2	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.4 mg/L	5	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	15 mg/L	2	EPA 300.0
Calcium (Total)	55 mg/L	0.2	EPA 200.7
Magnesium (Total)	16 mg/L	0.1	EPA 200.7
COD	9.2 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.075 mg/L	0.05	SM4500P-E
TKN	0.42 mg/L	0.4	SM4500N(Org)-D
TOC	2.6 mg/L	1	SM5310C

Lab ID #: AB48084	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	108.6 MPN/100mL	1	SM9223B

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

SiteID: WEM-07-0016 Sample Date: 8/16/2021 IDEM Sample #: AB47665
 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	127.8 %		ASTM D888-09(C)
DO	10.38 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	416.5 umho/cm		SM2510B
Temperature	25.9 °C		SM2550B(2)
Turbidity (Hach)	4.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEM-07-0016 Sample Date: 9/15/2021 IDEM Sample #: AB48377
 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	65.5 %		ASTM D888-09(C)
DO	5.69 mg/L		ASTM D888-09(C)
pH (Field)	7.69 SU		EPA 150.2
Specific Conductance (Field)	380 umho/cm		SM2510B
Temperature	22.8 °C		SM2550B(2)
Turbidity (Hach)	3.64 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-205399-12	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	18 mg/L	1	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5 mg/L	5	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	13 mg/L	1	EPA 300.0
Calcium (Total)	48 mg/L	0.2	EPA 200.7
Magnesium (Total)	15 mg/L	0.1	EPA 200.7
COD	15 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.18 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.058 mg/L	0.05	SM4500P-E
TKN	0.65 mg/L	0.4	SM4500N(Org)-D
TOC	4.2 mg/L	1	SM5310C

Lab ID #: AB48377	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WEM-07-0016 **Sample Date:** 10/13/2021 **IDEM Sample #:** AB48857
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	74 %		ASTM D888-09(C)
DO	7.29 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	452.3 umho/cm		SM2510B
Temperature	16.1 °C		SM2550B(2)
Turbidity (Hach)	4.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID #: 500-206919-12	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	24 mg/L	1	EPA 300.0
Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2.4 mg/L	5	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	250 mg/L	10	SM2540C
Sulfate	15 mg/L	1	EPA 300.0
Calcium (Total)	58 mg/L	0.2	EPA 200.7
Magnesium (Total)	17 mg/L	0.1	EPA 200.7
COD	17 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.91 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.046 mg/L	0.05	SM4500P-E
TKN	0.52 mg/L	0.4	SM4500N(Org)-D
TOC	4.2 mg/L	1	SM5310C

Lab ID #: AB48857	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	140.1 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	

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

SiteID: WEM080-0027 **USGS Hydrologic Unit:** 051202070704
Stream Name: Mutton Creek **County:** Jackson
Description: CR 800 North **Latitude:** 38 59 55.12075 **Longitude:** -85 48 22.97647
Drainage: 18.199 **Site Number:** 21T-014

SiteID: WEM080-0027 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48081
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	65 %		ASTM D888-09(C)
DO	5.89 mg/L		ASTM D888-09(C)
pH (Field)	7.52 SU		EPA 150.2
Specific Conductance (Field)	360.7 umho/cm		SM2510B
Temperature	20.2 °C		SM2550B(2)
Turbidity (Hach)	11 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #:</u> 500-203424-1	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	12 mg/L	1	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	8.4 mg/L	5	SM2540D
Solids, Total (TS)	260 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	250 mg/L	10	SM2540C
Sulfate	12 mg/L	1	EPA 300.0
Calcium (Total)	46 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	17 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.12 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.062 mg/L	0.05	SM4500P-E
TKN	0.53 mg/L	0.4	SM4500N(Org)-D
TOC	3.9 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48081	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	920.8 MPN/100mL	1	SM9223B

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

SiteID: WEM080-0027 Sample Date: 8/16/2021 IDEM Sample #: AB47666
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Saw Ancyronyx and Enochrus adults in sample, not picked (not found during 15 minute pick).

Lab ID #:	Result	Reporting Limit	Method
% Sat	57 %		ASTM D888-09(C)
DO	4.84 mg/L		ASTM D888-09(C)
pH (Field)	7.4 SU		EPA 150.2
Specific Conductance (Field)	373.8 umho/cm		SM2510B
Temperature	23.7 °C		SM2550B(2)
Turbidity (Hach)	10.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEM080-0027 Sample Date: 9/14/2021 IDEM Sample #: AB48374
 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	65.9 %		ASTM D888-09(C)
DO	5.84 mg/L		ASTM D888-09(C)
pH (Field)	7.3 SU		EPA 150.2
Specific Conductance (Field)	391.8 umho/cm		SM2510B
Temperature	21.7 °C		SM2550B(2)
Turbidity (Hach)	4.25 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID #: 500-205399-1

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	15 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.4 mg/L	5	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	4.1 mg/L	0.2	EPA 300.0
Calcium (Total)	47 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	12 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.062 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.069 mg/L	0.05	SM4500P-E
TKN	0.74 mg/L	0.4	SM4500N(Org)-D
TOC	4.8 mg/L	1	SM5310C

Lab ID #: AB48374

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	50.4 MPN/100mL	1	SM9223B

SiteID: WEM080-0027

Sample Date: 10/12/2021

IDEM Sample #: AB48854

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	59.7 %		ASTM D888-09(C)
DO	5.42 mg/L		ASTM D888-09(C)
pH (Field)	7.12 SU		EPA 150.2
Specific Conductance (Field)	391.6 umho/cm		SM2510B
Temperature	20 °C		SM2550B(2)
Turbidity (Hach)	11.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID #: 500-206919-1	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	15 mg/L	1	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9.2 mg/L	5	SM2540D
Solids, Total (TS)	240 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	22 mg/L	1	EPA 300.0
Calcium (Total)	50 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	19 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.55 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.07 mg/L	0.05	SM4500P-E
TKN	0.55 mg/L	0.4	SM4500N(Org)-D
TOC	5.6 mg/L	1	SM5310C

Lab ID #: AB48854	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	272.3 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM080-0025 **USGS Hydrologic Unit:** 051202070704
Stream Name: Mutton Creek **County:** Jennings
Description: CR 300 North **Latitude:** 39 1 40.68763 **Longitude:** -85 45 55.47689
Drainage: 8.239 **Site Number:** 21T-015

SiteID: WEM080-0025 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48092
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	71 %		ASTM D888-09(C)
DO	6.52 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	352 umho/cm		SM2510B
Temperature	19.3 °C		SM2550B(2)
Turbidity (Hach)	6.64 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 #: 500-203424-2	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	12 mg/L	1	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5.6 mg/L	5	SM2540D
Solids, Total (TS)	300 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	20 mg/L	1	EPA 300.0
Calcium (Total)	51 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	11 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.025 mg/L	0.05	SM4500P-E
TKN	0.51 mg/L	0.4	SM4500N(Org)-D
TOC	2.7 mg/L	1	SM5310C

Lab ID #: AB48092	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

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

SiteID: WEM080-0025 **Sample Date:** 8/16/2021 **IDEM Sample #:** AB47667
Water Flow Type Pool **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	54.3 %		ASTM D888-09(C)
DO	4.77 mg/L		ASTM D888-09(C)
pH (Field)	7.39 SU		EPA 150.2
Specific Conductance (Field)	369.9 umho/cm		SM2510B
Temperature	22.1 °C		SM2550B(2)
Turbidity (Hach)	6.89 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEM080-0025 **Sample Date:** 9/14/2021 **IDEM Sample #:** AB48385
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	60.6 %		ASTM D888-09(C)
DO	5.32 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	345.4 umho/cm		SM2510B
Temperature	21.7 °C		SM2550B(2)
Turbidity (Hach)	6.55 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-205399-2	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	7.9 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6.2 mg/L	5	SM2540D
Solids, Total (TS)	310 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	170 mg/L	10	SM2540C
Sulfate	16 mg/L	0.4	EPA 300.0
Calcium (Total)	47 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	15 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.053 mg/L	0.05	SM4500P-E
TKN	0.6 mg/L	0.4	SM4500N(Org)-D
TOC	3.8 mg/L	1	SM5310C

Lab ID #: AB48385	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	209.8 MPN/100mL	1	SM9223B

SiteID: WEM080-0025 **Sample Date:** 10/12/2021 **IDEM Sample #:** AB48865
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	49 %		ASTM D888-09(C)
DO	4.46 mg/L		ASTM D888-09(C)
pH (Field)	7.24 SU		EPA 150.2
Specific Conductance (Field)	405.5 umho/cm		SM2510B
Temperature	19.9 °C		SM2550B(2)
Turbidity (Hach)	5.15 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-2	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	13 mg/L	1	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.2 mg/L	5	SM2540D
Solids, Total (TS)	250 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	200 mg/L	10	SM2540C
Sulfate	24 mg/L	1	EPA 300.0
Calcium (Total)	57 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	14 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.18 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.087 mg/L	0.05	SM4500P-E
TKN	0.45 mg/L	0.4	SM4500N(Org)-D
TOC	5 mg/L	1	SM5310C

Lab ID #: AB48865	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM080-0013 **USGS Hydrologic Unit:** 051202070703
Stream Name: Storm Creek Ditch **County:** Jackson
Description: CR 400 North **Latitude:** 38 56 25.99130 **Longitude:** -85 48 21.34228
Drainage: 17.513 **Site Number:** 21T-016

SiteID: WEM080-0013 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48087
Water Flow Type: Glide **Water Appearance:** Brown **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: Almost stagnant/not moving, some duckweed present

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	9.6 %		ASTM D888-09(C)
DO	0.84 mg/L		ASTM D888-09(C)
pH (Field)	7.12 SU		EPA 150.2
Specific Conductance (Field)	351.5 umho/cm		SM2510B
Temperature	20.8 °C		SM2550B(2)
Turbidity (Hach)	14.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #:</u> 500-203424-15	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	11 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	160 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	18 mg/L	5	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	7.1 mg/L	0.2	EPA 300.0
Calcium (Total)	45 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.1	EPA 200.7
COD	20 mg/L	10	SM5220C
Nitrogen, Ammonia	0.7 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.051 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
TKN	1.3 mg/L	0.4	SM4500N(Org)-D
TOC	5.6 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48087	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	81.3 MPN/100mL	1	SM9223B

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

SiteID: WEM080-0013 Sample Date: 8/17/2021 IDEM Sample #: AB47668
 Water Flow Type Glide Water Appearance Sheen Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Canoe site, entirely a deep canal, no kick

Lab ID #:	Result	Reporting Limit	Method
% Sat	2.1 %		ASTM D888-09(C)
DO	0.18 mg/L		ASTM D888-09(C)
pH (Field)	7.12 SU		EPA 150.2
Specific Conductance (Field)	388.8 umho/cm		SM2510B
Temperature	22.7 °C		SM2550B(2)
Turbidity (Hach)	9.73 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM080-0013 Sample Date: 9/15/2021 IDEM Sample #: AB48380
 Water Flow Type Glide Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Excessive duckweed, little to no flow

Lab ID #:	Result	Reporting Limit	Method
% Sat	3.6 %		ASTM D888-09(C)
DO	0.28 mg/L		ASTM D888-09(C)
pH (Field)	6.99 SU		EPA 150.2
Specific Conductance (Field)	405.1 umho/cm		SM2510B
Temperature	20.8 °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	1 Lookup		Observation

**Indiana Department of Environmental Management
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Lab ID #: 500-205399-14	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	140 mg/L	5	SM2320B
Chloride	11 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	140 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	19 mg/L	13	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 mg/L	10	SM2540C
Sulfate	7.7 mg/L	0.2	EPA 300.0
Calcium (Total)	40 mg/L	0.2	EPA 200.7
Magnesium (Total)	10 mg/L	0.1	EPA 200.7
COD	41 mg/L	10	SM5220C
Nitrogen, Ammonia	0.18 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.1 mg/L	0.05	SM4500P-E
TKN	1.5 mg/L	0.4	SM4500N(Org)-D
TOC	15 mg/L	1	SM5310C

Lab ID #: AB48380	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	98.7 MPN/100mL	1	SM9223B

SiteID: WEM080-0013 **Sample Date:** 10/13/2021 **IDEM Sample #:** AB48860
Water Flow Type Glike **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: very low flow/stagnant

Lab ID #:	Result	Reporting Limit	Method
% Sat	5.1 %		ASTM D888-09(C)
DO	0.49 mg/L		ASTM D888-09(C)
pH (Field)	7.02 SU		EPA 150.2
Specific Conductance (Field)	399.5 umho/cm		SM2510B
Temperature	18.7 °C		SM2550B(2)
Turbidity (Hach)	7.54 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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Lab ID #: 500-206919-15	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	15 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	10 mg/L	6.3	SM2540D
Solids, Total (TS)	280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	200 mg/L	10	SM2540C
Sulfate	11 mg/L	0.4	EPA 300.0
Calcium (Total)	50 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	28 mg/L	10	SM5220C
Nitrogen, Ammonia	0.18 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.25 mg/L	0.05	SM4500P-E
TKN	0.7 mg/L	0.4	SM4500N(Org)-D
TOC	6.8 mg/L	1	SM5310C

Lab ID #: AB48860	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	107.6 MPN/100mL	1	SM9223B

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
2 - Scattered	9 - Snow	9 - East (90 Degrees)	1 - Light
3 - Partly	10 - Sleet	18 - South (180 Degrees)	2 - Mod./Light
4 - Cloudy		27 - West (270 Degrees)	3 - Moderate
5 - Mist			4 - Mod./Strong
6 - Fog			5 - Strong
7 - Shower			6 - Gale

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Surface Water Results Summary

SiteID: WEM080-0005 **USGS Hydrologic Unit:** 051202070703
Stream Name: Tributary to Richart Lake **County:** Jennings
Description: CR 900 West **Latitude:** 38 58 10.31116 **Longitude:** -85 46 38.64888
Drainage: 1.529 **Site Number:** 21T-017

SiteID: WEM080-0005 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48086
Water Flow Type: Pool **Water Appearance:** Clear **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: very low flow

Lab ID #:	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	51.2 %		ASTM D888-09(C)
DO	4.86 mg/L		ASTM D888-09(C)
pH (Field)	7.4 SU		EPA 150.2
Specific Conductance (Field)	523 umho/cm		SM2510B
Temperature	18.1 °C		SM2550B(2)
Turbidity (Hach)	6.01 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 #: 500-203424-13	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	32 mg/L	4	EPA 300.0
Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6 mg/L	5	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	510 mg/L	10	SM2540C
Sulfate	46 mg/L	4	EPA 300.0
Calcium (Total)	54 mg/L	0.2	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7
COD	21 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.068 mg/L	0.05	SM4500P-E
TKN	0.29 mg/L	0.4	SM4500N(Org)-D
TOC	3.8 mg/L	1	SM5310C

Lab ID #: AB48086	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1119.9 MPN/100mL	1	SM9223B

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

SiteID: WEM080-0005 Sample Date: 8/17/2021 IDEM Sample #: AB47669
 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 pools

Lab ID #:	Result	Reporting Limit	Method
% Sat	4 %		ASTM D888-09(C)
DO	0.36 mg/L		ASTM D888-09(C)
pH (Field)	7.33 SU		EPA 150.2
Specific Conductance (Field)	543 umho/cm		SM2510B
Temperature	22.3 °C		SM2550B(2)
Turbidity (Hach)	5.93 NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEM080-0005 Sample Date: 10/13/2021 IDEM Sample #: AB48859
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: very low flow

Lab ID #:	Result	Reporting Limit	Method
% Sat	22.9 %		ASTM D888-09(C)
DO	2.24 mg/L		ASTM D888-09(C)
pH (Field)	7.28 SU		EPA 150.2
Specific Conductance (Field)	639 umho/cm		SM2510B
Temperature	16.9 °C		SM2550B(2)
Turbidity (Hach)	4.12 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
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Lab ID #: 500-206919-14	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	220 mg/L	5	SM2320B
Chloride	53 mg/L	2	EPA 300.0
Hardness (as CaCO3)	250 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3 mg/L	5	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	38 mg/L	2	EPA 300.0
Calcium (Total)	64 mg/L	0.2	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7
COD	24 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
TKN	0.52 mg/L	0.4	SM4500N(Org)-D
TOC	7.1 mg/L	1	SM5310C

Lab ID #: AB48859	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	307.6 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM-07-0014 **USGS Hydrologic Unit:** 051202070703
Stream Name: Storm Creek **County:** Jennings
Description: Base Road **Latitude:** 38 58 59.52422 **Longitude:** -85 47 12.15271
Drainage: 9.378 **Site Number:** 21T-018

SiteID: WEM-07-0014 **Sample Date:** 8/4/2021 **IDEM Sample #:** AB48085
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	71 %		ASTM D888-09(C)
DO	6.63 mg/L		ASTM D888-09(C)
pH (Field)	7.43 SU		EPA 150.2
Specific Conductance (Field)	414.8 umho/cm		SM2510B
Temperature	18.8 °C		SM2550B(2)
Turbidity (Hach)	5.15 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 #: 500-203424-12	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	14 mg/L	1	EPA 300.0
Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.2 mg/L	5	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 mg/L	10	SM2540C
Sulfate	15 mg/L	1	EPA 300.0
Calcium (Total)	53 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	12 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.81 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.062 mg/L	0.05	SM4500P-E
TKN	0.41 mg/L	0.4	SM4500N(Org)-D
TOC	2.8 mg/L	1	SM5310C

Lab ID #: AB48085	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

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

SiteID: WEM-07-0014 Sample Date: 8/16/2021 IDEM Sample #: AB47670
 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	79 %		ASTM D888-09(C)
DO	6.77 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	311.3 umho/cm		SM2510B
Temperature	22.6 °C		SM2550B(2)
Turbidity (Hach)	4.23 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM-07-0014 Sample Date: 9/15/2021 IDEM Sample #: AB48378
 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	4.97 mg/L		ASTM D888-09(C)
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	414.8 umho/cm		SM2510B
Temperature	21.6 °C		SM2550B(2)
Turbidity (Hach)	3.71 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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Lab ID #: 500-205399-13

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	14 mg/L	1	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	7.2 mg/L	5	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 mg/L	10	SM2540C
Sulfate	13 mg/L	1	EPA 300.0
Calcium (Total)	51 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	9.3 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.068 mg/L	0.05	SM4500P-E
TKN	0.55 mg/L	0.4	SM4500N(Org)-D
TOC	3.7 mg/L	1	SM5310C

Lab ID #: AB48378

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WEM-07-0014

Sample Date: 10/13/2021

IDEM Sample #: AB48858

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	39 %		ASTM D888-09(C)
DO	3.79 mg/L		ASTM D888-09(C)
pH (Field)	6.98 SU		EPA 150.2
Specific Conductance (Field)	356.1 umho/cm		SM2510B
Temperature	16.7 °C		SM2550B(2)
Turbidity (Hach)	2.22 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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Lab ID #: 500-206919-13	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	12 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	160 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	< 5 mg/L	5	SM2540D
Solids, Total (TS)	250 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	180 mg/L	10	SM2540C
Sulfate	10 mg/L	0.4	EPA 300.0
Calcium (Total)	45 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	19 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
TKN	0.5 mg/L	0.4	SM4500N(Org)-D
TOC	5.5 mg/L	1	SM5310C

Lab ID #: AB48858	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	285.1 MPN/100mL	1	SM9223B

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
2 - Scattered	9 - Snow	9 - East (90 Degrees)	1 - Light
3 - Partly	10 - Sleet	18 - South (180 Degrees)	2 - Mod./Light
4 - Cloudy		27 - West (270 Degrees)	3 - Moderate
5 - Mist			4 - Mod./Strong
6 - Fog			5 - Strong
7 - Shower			6 - Gale
			1 - < 32
			2 - 33-45
			3 - 46-60
			4 - 61-75
			5 - 76-85
			6 - > 86

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

SiteID: WEM-07-0017 **USGS Hydrologic Unit:** 051202070702
Stream Name: Sixmile Creek **County:** Jennings
Description: CR 500 South **Latitude:** 38 54 40.15219 **Longitude:** -85 45 44.37870
Drainage: 30.679 **Site Number:** 21T-019

SiteID: WEM-07-0017 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48103
Water Flow Type Riffle **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	109.9 %		ASTM D888-09(C)
DO	9.36 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	397.8 umho/cm		SM2510B
Temperature	23.5 °C		SM2550B(2)
Turbidity (Hach)	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

<u>Lab ID #:</u> 500-203424-8	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	110 mg/L	5	SM2320B
Chloride	20 mg/L	2	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	13 mg/L	5	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	60 mg/L	2	EPA 300.0
Calcium (Total)	47 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	13 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.81 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.15 mg/L	0.05	SM4500P-E
TKN	0.39 mg/L	0.4	SM4500N(Org)-D
TOC	4.5 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48103	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	209.8 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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SiteID: WEM-07-0017 Sample Date: 8/16/2021 IDEM Sample #: AB47671
 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	102.6 %		ASTM D888-09(C)
DO	8.44 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	340 umho/cm		SM2510B
Temperature	25.2 °C		SM2550B(2)
Turbidity (Hach)	14.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEM-07-0017 Sample Date: 9/14/2021 IDEM Sample #: AB48396
 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	118.4 %		ASTM D888-09(C)
DO	9.58 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	407 umho/cm		SM2510B
Temperature	26.1 °C		SM2550B(2)
Turbidity (Hach)	15.8 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

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

Lab ID #: 500-205399-9

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	120 mg/L	5	SM2320B
Chloride	21 mg/L	2	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	17 mg/L	5	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	57 mg/L	2	EPA 300.0
Calcium (Total)	45 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	18 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.25 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.17 mg/L	0.05	SM4500P-E
TKN	0.74 mg/L	0.4	SM4500N(Org)-D
TOC	6.1 mg/L	1	SM5310C

Lab ID #: AB48396

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	196.8 MPN/100mL	1	SM9223B

SiteID: WEM-07-0017

Sample Date: 10/12/2021

IDEM Sample #: AB48876

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	93.1 %		ASTM D888-09(C)
DO	8.33 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	421.7 umho/cm		SM2510B
Temperature	20.7 °C		SM2550B(2)
Turbidity (Hach)	8.17 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-9

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	120 mg/L	5	SM2320B
Chloride	14 mg/L	2	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	7.2 mg/L	5	SM2540D
Solids, Total (TS)	300 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
Sulfate	37 mg/L	2	EPA 300.0
Calcium (Total)	49 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	26 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.26 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
TKN	0.64 mg/L	0.4	SM4500N(Org)-D
TOC	5.9 mg/L	1	SM5310C

Lab ID #: AB48876

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	260.3 MPN/100mL	1	SM9223B

Weather Code Definitions				
SC		WD	WS	
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	

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

SiteID: WEM-07-0018 **USGS Hydrologic Unit:** 051202070702
Stream Name: Sixmile Creek **County:** Jennings
Description: CR 200 South **Latitude:** 38 57 15.78425 **Longitude:** -85 43 55.69768
Drainage: 24.444 **Site Number:** 21T-020

SiteID: WEM-07-0018 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48101
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	92.9 %		ASTM D888-09(C)
DO	8.31 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	330.2 umho/cm		SM2510B
Temperature	20.8 °C		SM2550B(2)
Turbidity (Hach)	11.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-203424-6	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	110 mg/L	5	SM2320B
Chloride	15 mg/L	2	EPA 300.0
Hardness (as CaCO3)	130 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9.6 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
Sulfate	31 mg/L	2	EPA 300.0
Calcium (Total)	38 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.1 mg/L	0.1	EPA 200.7
COD	22 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.37 mg/L	0.05	SM4500P-E
TKN	0.57 mg/L	0.4	SM4500N(Org)-D
TOC	5.4 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48101	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	727 MPN/100mL	1	SM9223B

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

SiteID: WEM-07-0018 **Sample Date:** 8/18/2021 **IDEM Sample #:** AB47672
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Photos taken of 2 Hagenius brevistylus, then released.

Lab ID #:	Result	Reporting Limit	Method
% Sat	80.1 %		ASTM D888-09(C)
DO	6.86 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	333.9 umho/cm		SM2510B
Temperature	23 °C		SM2550B(2)
Turbidity (Hach)	9.26 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: WEM-07-0018 **Sample Date:** 9/14/2021 **IDEM Sample #:** AB48394
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	8.83 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	392.1 umho/cm		SM2510B
Temperature	23 °C		SM2550B(2)
Turbidity (Hach)	14.8 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

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

Lab ID #: 500-205399-7

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	110 mg/L	5	SM2320B
Chloride	20 mg/L	2	EPA 300.0
Hardness (as CaCO3)	160 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	14 mg/L	5	SM2540D
Solids, Total (TS)	500 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
Sulfate	50 mg/L	2	EPA 300.0
Calcium (Total)	43 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	22 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.67 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.32 mg/L	0.05	SM4500P-E
TKN	0.89 mg/L	0.4	SM4500N(Org)-D
TOC	6.4 mg/L	1	SM5310C

Lab ID #: AB48394

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

SiteID: WEM-07-0018

Sample Date: 10/12/2021

IDEM Sample #: AB48874

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	86.7 %		ASTM D888-09(C)
DO	7.76 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	368.8 umho/cm		SM2510B
Temperature	20.7 °C		SM2550B(2)
Turbidity (Hach)	8.14 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-7	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	120 mg/L	5	SM2320B
Chloride	19 mg/L	2	EPA 300.0
Hardness (as CaCO3)	150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6.6 mg/L	5	SM2540D
Solids, Total (TS)	240 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	180 mg/L	10	SM2540C
Sulfate	36 mg/L	2	EPA 300.0
Calcium (Total)	44 mg/L	0.2	EPA 200.7
Magnesium (Total)	10 mg/L	0.1	EPA 200.7
COD	25 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.25 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.24 mg/L	0.05	SM4500P-E
TKN	0.68 mg/L	0.4	SM4500N(Org)-D
TOC	6.8 mg/L	1	SM5310C

Lab ID #: AB48874	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	120.1 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM-07-0019 **USGS Hydrologic Unit:** 051202070702
Stream Name: Sixmile Creek **County:** Jennings
Description: CR 175 North **Latitude:** 39 0 36.34528 **Longitude:** -85 42 17.91439
Drainage: 13.834 **Site Number:** 21T-021

SiteID: WEM-07-0019 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48097
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	74.9 %		ASTM D888-09(C)
DO	6.65 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	271.3 umho/cm		SM2510B
Temperature	21 °C		SM2550B(2)
Turbidity (Hach)	8.29 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #:</u> 500-203424-14	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	90 mg/L	5	SM2320B
Chloride	13 mg/L	1	EPA 300.0
Hardness (as CaCO3)	100 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5.8 mg/L	5	SM2540D
Solids, Total (TS)	290 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	15 mg/L	1	EPA 300.0
Calcium (Total)	29 mg/L	0.2	EPA 200.7
Magnesium (Total)	7 mg/L	0.1	EPA 200.7
COD	23 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.5 mg/L	0.05	SM4500P-E
TKN	0.79 mg/L	0.4	SM4500N(Org)-D
TOC	6.2 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48097	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	193.5 MPN/100mL	1	SM9223B

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

SiteID: WEM-07-0019 **Sample Date:** 8/16/2021 **IDEM Sample #:** AB47673
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	84.4 %		ASTM D888-09(C)
DO	7.15 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	276.7 umho/cm		SM2510B
Temperature	23.6 °C		SM2550B(2)
Turbidity (Hach)	10.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

SiteID: WEM-07-0019 **Sample Date:** 9/14/2021 **IDEM Sample #:** AB48390
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	77.6 %		ASTM D888-09(C)
DO	6.66 mg/L		ASTM D888-09(C)
pH (Field)	7.61 SU		EPA 150.2
Specific Conductance (Field)	292.4 umho/cm		SM2510B
Temperature	22.9 °C		SM2550B(2)
Turbidity (Hach)	9.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-205399-3	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	97 mg/L	5	SM2320B
Chloride	16 mg/L	1	EPA 300.0
Hardness (as CaCO3)	120 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	11 mg/L	5	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	160 mg/L	10	SM2540C
Sulfate	17 mg/L	1	EPA 300.0
Calcium (Total)	33 mg/L	0.2	EPA 200.7
Magnesium (Total)	8 mg/L	0.1	EPA 200.7
COD	27 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.95 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.36 mg/L	0.05	SM4500P-E
TKN	1.1 mg/L	0.4	SM4500N(Org)-D
TOC	6.8 mg/L	1	SM5310C

Lab ID #: AB48390	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	298.7 MPN/100mL	1	SM9223B

SiteID: WEM-07-0019 **Sample Date:** 10/12/2021 **IDEM Sample #:** AB48870
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	81.4 %		ASTM D888-09(C)
DO	7.34 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	313.2 umho/cm		SM2510B
Temperature	20.4 °C		SM2550B(2)
Turbidity (Hach)	6.19 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-3	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	97 mg/L	5	SM2320B
Chloride	18 mg/L	1	EPA 300.0
Hardness (as CaCO3)	130 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5.2 mg/L	5	SM2540D
Solids, Total (TS)	200 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	160 mg/L	10	SM2540C
Sulfate	26 mg/L	1	EPA 300.0
Calcium (Total)	37 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.3 mg/L	0.1	EPA 200.7
COD	28 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.65 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.26 mg/L	0.05	SM4500P-E
TKN	0.59 mg/L	0.4	SM4500N(Org)-D
TOC	6.9 mg/L	1	SM5310C

Lab ID #: AB48870	Result	Reporting Limit	Method
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
2 - Scattered	9 - Snow	9 - East (90 Degrees)	1 - Light
3 - Partly	10 - Sleet	18 - South (180 Degrees)	2 - Mod./Light
4 - Cloudy		27 - West (270 Degrees)	3 - Moderate
5 - Mist			4 - Mod./Strong
6 - Fog			5 - Strong
7 - Shower			6 - > 86

Indiana Department of Environmental Management

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM-07-0020 **USGS Hydrologic Unit:** 051202070702
Stream Name: Sixmile Creek **County:** Jennings
Description: CR 415 North **Latitude:** 39 2 44.73366 **Longitude:** -85 40 35.18964
Drainage: 8.944 **Site Number:** 21T-022

SiteID: WEM-07-0020 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48098
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	50.7 %		ASTM D888-09(C)
DO	4.8 mg/L		ASTM D888-09(C)
pH (Field)	7.28 SU		EPA 150.2
Specific Conductance (Field)	627 umho/cm		SM2510B
Temperature	17.7 °C		SM2550B(2)
Turbidity (Hach)	5.86 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 #: 500-203424-3	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	200 mg/L	5	SM2320B
Chloride	29 mg/L	2	EPA 300.0
Hardness (as CaCO3)	280 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	< 5 mg/L	5	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	60 mg/L	2	EPA 300.0
Calcium (Total)	80 mg/L	0.2	EPA 200.7
Magnesium (Total)	20 mg/L	0.1	EPA 200.7
COD	13 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.055 mg/L	0.05	SM4500P-E
TKN	0.48 mg/L	0.4	SM4500N(Org)-D
TOC	2.4 mg/L	1	SM5310C

Lab ID #: AB48098	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	770.1 MPN/100mL	1	SM9223B

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

SiteID: WEM-07-0020 **Sample Date:** 8/16/2021 **IDEM Sample #:** AB47674
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Floating algal mats

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	63.6 %		ASTM D888-09(C)
DO	5.15 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	715 umho/cm		SM2510B
Temperature	20.1 °C		SM2550B(2)
Turbidity (Hach)	2.93 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEM-07-0020 **Sample Date:** 9/14/2021 **IDEM Sample #:** AB48391
Water Flow Type Glide **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	48.5 %		ASTM D888-09(C)
DO	4.38 mg/L		ASTM D888-09(C)
pH (Field)	7.11 SU		EPA 150.2
Specific Conductance (Field)	651 umho/cm		SM2510B
Temperature	19.8 °C		SM2550B(2)
Turbidity (Hach)	1.48 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-205399-4	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	200 mg/L	5	SM2320B
Chloride	49 mg/L	2	EPA 300.0
Hardness (as CaCO3)	250 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	< 5 mg/L	5	SM2540D
Solids, Total (TS)	650 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	60 mg/L	2	EPA 300.0
Calcium (Total)	73 mg/L	0.2	EPA 200.7
Magnesium (Total)	18 mg/L	0.1	EPA 200.7
COD	10 mg/L	10	SM5220C
Nitrogen, Ammonia	0.11 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.32 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.093 mg/L	0.05	SM4500P-E
TKN	0.75 mg/L	0.4	SM4500N(Org)-D
TOC	4.1 mg/L	1	SM5310C

Lab ID #: AB48391	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.9 MPN/100mL	1	SM9223B

SiteID: WEM-07-0020 **Sample Date:** 10/12/2021 **IDEM Sample #:** AB48871
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	45.2 %		ASTM D888-09(C)
DO	4.2 mg/L		ASTM D888-09(C)
pH (Field)	7.19 SU		EPA 150.2
Specific Conductance (Field)	602 umho/cm		SM2510B
Temperature	18.9 °C		SM2550B(2)
Turbidity (Hach)	2.98 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-4	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	190 mg/L	5	SM2320B
Chloride	27 mg/L	5	EPA 300.0
Hardness (as CaCO3)	250 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2.8 mg/L	5	SM2540D
Solids, Total (TS)	380 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	31 mg/L	5	EPA 300.0
Calcium (Total)	72 mg/L	0.2	EPA 200.7
Magnesium (Total)	17 mg/L	0.1	EPA 200.7
COD	17 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.32 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
TKN	0.48 mg/L	0.4	SM4500N(Org)-D
TOC	5.2 mg/L	1	SM5310C

Lab ID #: AB48871	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

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
2 - Scattered	9 - Snow	9 - East (90 Degrees)	1 - Light
3 - Partly	10 - Sleet	18 - South (180 Degrees)	2 - Mod./Light
4 - Cloudy		27 - West (270 Degrees)	3 - Moderate
5 - Mist			4 - Mod./Strong
6 - Fog			5 - Strong
7 - Shower			6 - > 86

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

SiteID: WEM070-0036 **USGS Hydrologic Unit:** 051202070701
Stream Name: Vernon Fork Muscatatuck River **County:** Jennings
Description: CR 400 West **Latitude:** 38 57 15.46163 **Longitude:** -85 41 5.94729
Drainage: 218.283 **Site Number:** 21T-023

SiteID: WEM070-0036 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48100
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	87.8 %		ASTM D888-09(C)
DO	7.54 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	423.9 umho/cm		SM2510B
Temperature	22.9 °C		SM2550B(2)
Turbidity (Hach)	20.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-203424-5	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	12 mg/L	2	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	23 mg/L	5	SM2540D
Solids, Total (TS)	330 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
Sulfate	24 mg/L	2	EPA 300.0
Calcium (Total)	55 mg/L	0.2	EPA 200.7
Magnesium (Total)	15 mg/L	0.1	EPA 200.7
COD	15 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.085 mg/L	0.05	SM4500P-E
TKN	0.45 mg/L	0.4	SM4500N(Org)-D
TOC	2.3 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48100	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	48 MPN/100mL	1	SM9223B

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

SiteID: WEM070-0036 **Sample Date:** 8/18/2021 **IDEM Sample #:** AB47675
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Photo taken of 1 Hagenius brevistylus, then released

Lab ID #:	Result	Reporting Limit	Method
% Sat	82.3 %		ASTM D888-09(C)
DO	6.85 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	468.6 umho/cm		SM2510B
Temperature	24.5 °C		SM2550B(2)
Turbidity (Hach)	8.81 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEM070-0036 **Sample Date:** 9/14/2021 **IDEM Sample #:** AB48393
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	95.9 %		ASTM D888-09(C)
DO	8.06 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	322.6 umho/cm		SM2510B
Temperature	24.1 °C		SM2550B(2)
Turbidity (Hach)	7.82 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

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

Lab ID #: 500-205399-6

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	140 mg/L	5	SM2320B
Chloride	11 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	8.8 mg/L	5	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	170 mg/L	10	SM2540C
Sulfate	12 mg/L	0.4	EPA 300.0
Calcium (Total)	43 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.9 mg/L	0.1	EPA 200.7
COD	11 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.12 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.08 mg/L	0.05	SM4500P-E
TKN	0.57 mg/L	0.4	SM4500N(Org)-D
TOC	3.5 mg/L	1	SM5310C

Lab ID #: AB48393

	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	35 MPN/100mL	1	SM9223B

SiteID: WEM070-0036

Sample Date: 10/12/2021

IDEM Sample #: AB48873

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	79.7 %		ASTM D888-09(C)
DO	7.08 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	372.9 umho/cm		SM2510B
Temperature	21.1 °C		SM2550B(2)
Turbidity (Hach)	7.35 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-6	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	15 mg/L	1	EPA 300.0
Hardness (as CaCO3)	170 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	5	SM2540D
Solids, Total (TS)	240 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	170 mg/L	10	SM2540C
Sulfate	19 mg/L	1	EPA 300.0
Calcium (Total)	48 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	13 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
TKN	0.44 mg/L	0.4	SM4500N(Org)-D
TOC	4.2 mg/L	1	SM5310C

Lab ID #: AB48873	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	107.1 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy	27	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: WEM070-0001 **USGS Hydrologic Unit:** 051202070701
Stream Name: Vernon Fork Muscatatuck River **County:** Jennings
Description: CR 60 South, Vernon **Latitude:** 38 58 34.90130 **Longitude:** -85 37 11.37519
Drainage: 197.56 **Site Number:** 21T-025

SiteID: WEM070-0001 **Sample Date:** 8/3/2021 **IDEM Sample #:** AB48099
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	80.5 %		ASTM D888-09(C)
DO	7.14 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	418.9 umho/cm		SM2510B
Temperature	21.2 °C		SM2550B(2)
Turbidity (Hach)	4.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #:</u> 500-203424-4	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	14 mg/L	1	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	5	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	200 mg/L	10	SM2540C
Sulfate	26 mg/L	1	EPA 300.0
Calcium (Total)	54 mg/L	0.2	EPA 200.7
Magnesium (Total)	16 mg/L	0.1	EPA 200.7
COD	7 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	EPA 350.1
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
TKN	0.47 mg/L	0.4	SM4500N(Org)-D
TOC	2.5 mg/L	1	SM5310C

<u>Lab ID #:</u> AB48099	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	70.3 MPN/100mL	1	SM9223B

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

SiteID: WEM070-0001 Sample Date: 8/17/2021 IDEM Sample #: AB47676
 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	103.9 %		ASTM D888-09(C)
DO	8.62 mg/L		ASTM D888-09(C)
pH (Field)	8.35 SU		EPA 150.2
Specific Conductance (Field)	466.8 umho/cm		SM2510B
Temperature	24.5 °C		SM2550B(2)
Turbidity (Hach)	3.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

SiteID: WEM070-0001 Sample Date: 9/14/2021 IDEM Sample #: AB48392
 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	89.8 %		ASTM D888-09(C)
DO	7.6 mg/L		ASTM D888-09(C)
pH (Field)	8.49 SU		EPA 150.2
Specific Conductance (Field)	327.7 umho/cm		SM2510B
Temperature	23.6 °C		SM2550B(2)
Turbidity (Hach)	4.55 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID #: 500-205399-5	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	120 mg/L	5	SM2320B
Chloride	15 mg/L	1	EPA 300.0
Hardness (as CaCO3)	140 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3.8 mg/L	5	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	180 mg/L	10	SM2540C
Sulfate	19 mg/L	1	EPA 300.0
Calcium (Total)	40 mg/L	0.2	EPA 200.7
Magnesium (Total)	10 mg/L	0.1	EPA 200.7
COD	16 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.57 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
TKN	0.57 mg/L	0.4	SM4500N(Org)-D
TOC	4.4 mg/L	1	SM5310C

Lab ID #: AB48392	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	98.7 MPN/100mL	1	SM9223B

SiteID: WEM070-0001 **Sample Date:** 10/12/2021 **IDEM Sample #:** AB48872
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	94.4 %		ASTM D888-09(C)
DO	8.44 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	381.2 umho/cm		SM2510B
Temperature	20.7 °C		SM2550B(2)
Turbidity (Hach)	3.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: 500-206919-5	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
Chloride	15 mg/L	1	EPA 300.0
Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	< 5 mg/L	5	SM2540D
Solids, Total (TS)	260 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	170 mg/L	10	SM2540C
Sulfate	21 mg/L	1	EPA 300.0
Calcium (Total)	50 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	17 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.81 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
TKN	0.47 mg/L	0.4	SM4500N(Org)-D
TOC	4.7 mg/L	1	SM5310C

Lab ID #: AB48872	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	41.4 MPN/100mL	1	SM9223B

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
2 - Scattered	9 - Snow	9 - East (90 Degrees)	1 - Light
3 - Partly	10 - Sleet	18 - South (180 Degrees)	2 - Mod./Light
4 - Cloudy		27 - West (270 Degrees)	3 - Moderate
5 - Mist			4 - Mod./Strong
6 - Fog			5 - Strong
7 - Shower			6 - Gale

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

SiteID: WEM-07-0022 **USGS Hydrologic Unit:** 051202070706
Stream Name: Nehrt Ditch **County:** Jackson
Description: CR 600 S **Latitude:** 38 47 37.42800 **Longitude:** -85 51 21.89160
Drainage: **Site Number:** 21T-026

SiteID: WEM-07-0022 **Sample Date:** 9/22/2021 **IDEM Sample #:** AB48738
Water Flow Type: Glide **Water Appearance:** Murky **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: slight effluent smell

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	54.6 %	ASTM D888-09(C)
	DO	5.04 mg/L	ASTM D888-09(C)
	pH (Field)	6.99 SU	EPA 150.2
	Specific Conductance (Field)	484.4 umho/cm	SM2510B
	Temperature	19.3 °C	SM2550B(2)
	Turbidity (Hach)	15.1 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

<u>Lab ID #:</u> 500-205776-1	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>	
	Alkalinity (as CaCO3)	110 mg/L	5	SM2320B
	Chloride	50 mg/L	4	EPA 300.0
	Hardness (as CaCO3)	140 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	15 mg/L	5	SM2540D
	Solids, Total (TS)	360 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
	Sulfate	27 mg/L	4	EPA 300.0
	Calcium (Total)	41 mg/L	0.2	EPA 200.7
	Magnesium (Total)	9.1 mg/L	0.1	EPA 200.7
	COD	25 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.21 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	2 mg/L	0.25	SM4500P-E
	TKN	1.1 mg/L	0.4	SM4500N(Org)-D
	TOC	7.2 mg/L	1	SM5310C

Indiana Department of Environmental Management

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM-07-0022 **Sample Date:** 10/20/2021 **IDEM Sample #:** AB48881
Water Flow Type Run **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	90.3 %		ASTM D888-09(C)
DO	9.13 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	938 umho/cm		SM2510B
Temperature	14.8 °C		SM2550B(2)
Turbidity (Hach)	4.32 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 #: 500-207277-1	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	320 mg/L	5	SM2320B
Chloride	81 mg/L	5	EPA 300.0
Hardness (as CaCO3)	370 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2.2 mg/L	5	SM2540D
Solids, Total (TS)	590 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	520 mg/L	10	SM2540C
Sulfate	72 mg/L	5	EPA 300.0
Calcium (Total)	100 mg/L	0.2	EPA 200.7
Magnesium (Total)	27 mg/L	0.1	EPA 200.7
COD	10 mg/L	10	SM5220C
Nitrogen, Ammonia	0.11 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.7 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	2.7 mg/L	0.25	SM4500P-E
TKN	0.44 mg/L	0.4	SM4500N(Org)-D
TOC	1.8 mg/L	1	SM5310C

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: WEM-07-0023 **USGS Hydrologic Unit:** 051202070706
Stream Name: Blau Ditch **County:** Jackson
Description: CR 1000 E **Latitude:** 38 48 4.53060 **Longitude:** -85 51 4.83840
Drainage: **Site Number:** 21T-027

SiteID: WEM-07-0023 **Sample Date:** 9/22/2021 **IDEM Sample #:** AB48737
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 %	ASTM D888-09(C)
	DO	6.73 mg/L	ASTM D888-09(C)
	pH (Field)	6.89 SU	EPA 150.2
	Specific Conductance (Field)	325.8 umho/cm	SM2510B
	Temperature	18.5 °C	SM2550B(2)
	Turbidity (Hach)	28.2 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 #: 500-205776-2	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	84 mg/L	5	SM2320B
	Chloride	22 mg/L	1	EPA 300.0
	Hardness (as CaCO3)	110 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	18 mg/L	5	SM2540D
	Solids, Total (TS)	320 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
	Sulfate	28 mg/L	1	EPA 300.0
	Calcium (Total)	29 mg/L	0.2	EPA 200.7
	Magnesium (Total)	8 mg/L	0.1	EPA 200.7
	COD	46 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.16 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.79 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.65 mg/L	0.05	SM4500P-E
	TKN	1.4 mg/L	0.4	SM4500N(Org)-D
	TOC	16 mg/L	1	SM5310C

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

SiteID: WEM-07-0023

Sample Date: 10/20/2021

IDEM Sample #: AB48880

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 #:	Result	Reporting Limit	Method
	% Sat	41.6 %	ASTM D888-09(C)
	DO	4.38 mg/L	ASTM D888-09(C)
	pH (Field)	7.43 SU	EPA 150.2
	Specific Conductance (Field)	520 umho/cm	SM2510B
	Temperature	13 °C	SM2550B(2)
	Turbidity (Hach)	3.89 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 #: 500-207277-2	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
	Chloride	45 mg/L	2	EPA 300.0
	Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	< 5 mg/L	5	SM2540D
	Solids, Total (TS)	310 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
	Sulfate	23 mg/L	2	EPA 300.0
	Calcium (Total)	53 mg/L	0.2	EPA 200.7
	Magnesium (Total)	14 mg/L	0.1	EPA 200.7
	COD	22 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.12 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.66 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.32 mg/L	0.05	SM4500P-E
	TKN	0.55 mg/L	0.4	SM4500N(Org)-D
	TOC	8 mg/L	1	SM5310C

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	

Indiana Department of Environmental Management

Office of Water Quality-Watershed Assessment and Planning Branch

Surface Water Results Summary

SiteID: WEM-07-0024 **USGS Hydrologic Unit:** 051202070706
Stream Name: Grassy Creek **County:** Jackson
Description: US 31 **Latitude:** 38 49 4.53360 **Longitude:** -85 50 14.74080
Drainage: **Site Number:** 21T-028

SiteID: WEM-07-0024 **Sample Date:** 9/22/2021 **IDEM Sample #:** AB48736
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	76.3 %		ASTM D888-09(C)
DO	7.09 mg/L		ASTM D888-09(C)
pH (Field)	6.8 SU		EPA 150.2
Specific Conductance (Field)	323.3 umho/cm		SM2510B
Temperature	18.9 °C		SM2550B(2)
Turbidity (Hach)	75 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	7 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-205776-3	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	86 mg/L	5	SM2320B
Chloride	22 mg/L	1	EPA 300.0
Hardness (as CaCO3)	97 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	55 mg/L	8.3	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	25 mg/L	1	EPA 300.0
Calcium (Total)	27 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.3 mg/L	0.1	EPA 200.7
COD	38 mg/L	10	SM5220C
Nitrogen, Ammonia	0.11 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.47 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	1.9 mg/L	0.25	SM4500P-E
TKN	0.89 mg/L	0.4	SM4500N(Org)-D
TOC	12 mg/L	4	SM5310C

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

SiteID: WEM-07-0024

Sample Date: 10/20/2021

IDEM Sample #: AB48879

Water Flow Type Glide

Water Appearance Clear

Water Depth **Algae?**

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments: stagnant, not moving

Lab ID #:	Result	Reporting Limit	Method
	% Sat	50.7 %	ASTM D888-09(C)
	DO	5.34 mg/L	ASTM D888-09(C)
	pH (Field)	7.42 SU	EPA 150.2
	Specific Conductance (Field)	514 umho/cm	SM2510B
	Temperature	13.1 °C	SM2550B(2)
	Turbidity (Hach)	5 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 #: 500-207277-3	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	210 mg/L	5	SM2320B
	Chloride	29 mg/L	1	EPA 300.0
	Hardness (as CaCO3)	220 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	2.6 mg/L	5	SM2540D
	Solids, Total (TS)	310 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	250 mg/L	10	SM2540C
	Sulfate	19 mg/L	1	EPA 300.0
	Calcium (Total)	59 mg/L	0.2	EPA 200.7
	Magnesium (Total)	17 mg/L	0.1	EPA 200.7
	COD	24 mg/L	10	SM5220C
	Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.29 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.25 mg/L	0.05	SM4500P-E
	TKN	0.72 mg/L	0.4	SM4500N(Org)-D
	TOC	7.4 mg/L	1	SM5310C

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	