

**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: **Site Number:** 21T-001

SiteID: WEM090-0003 **Sample Date:** 11/16/2020 **IDEM Sample #:** AB44694
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	77.2 %	ASTM D888-09(C)
	DO	8.66 mg/L	ASTM D888-09(C)
	pH (Field)	7.94 SU	EPA 150.2
	Specific Conductance (Field)	391 umho/cm	SM2510B
	Temperature	9.7 °C	SM2550B(2)
	Turbidity (Hach)	11 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	2 Lookup	Observation

<u>Lab ID #:</u> 500-191243-7	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>	
	Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
	Chloride	15 mg/L	5	EPA 300.0
	Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	4.3 mg/L	5	I-3765-85
	Solids, Total (TS)	300 mg/L	30	SM2540B
	Solids, Total Dissolved (TDS)	250 mg/L	30	SM2540C
	Sulfate	19 mg/L	5	EPA 300.0
	Calcium (Total)	54 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	0.11 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.53 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	4.6 mg/L	1	SM5310C

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

SiteID: WEM090-0003

Sample Date: 12/15/2020

IDEM Sample #: AB44913

Water Flow Type Run

Water Appearance Murky

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	87.5 %		ASTM D888-09(C)
DO	11.21 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	404 umho/cm		SM2510B
Temperature	4.8 °C		SM2550B(2)
Turbidity (Hach)	8.09 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-192616-7	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	17 mg/L	1	EPA 300.0
Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3.5 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	180 mg/L	10	SM2540C
Sulfate	23 mg/L	1	EPA 300.0
Calcium (Total)	56 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	13 mg/L	10	SM5220C
Nitrogen, Ammonia	0.13 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.076 mg/L	0.05	SM4500P-E
TKN	0.65 mg/L	0.4	SM4500N(Org)-D
TOC	3 mg/L	1	SM5310C

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

SiteID: WEM090-0003

Sample Date: 1/11/2021

IDEM Sample #: AB45031

Water Flow Type Run

Water Appearance Murky

Water Depth **Algae?**

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
	% Sat	92.2 %	ASTM D888-09(C)
	DO	12.78 mg/L	ASTM D888-09(C)
	pH (Field)	8.07 SU	EPA 150.2
	Specific Conductance (Field)	365 umho/cm	SM2510B
	Temperature	2 °C	SM2550B(2)
	Turbidity (Hach)	20 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #: 500-193651-7	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	140 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)	11 mg/L	5	SM2540D
	Solids, Total (TS)	210 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
	Sulfate	20 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	16 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.15 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
	TKN	0.64 mg/L	0.4	SM4500N(Org)-D
	TOC	3.8 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-07-0011 **USGS Hydrologic Unit:** 051202070706
Stream Name: Vernon Fork Muscatatuck River **County:** Jackson
Description: SR 250 **Latitude:** 38 50 40.76670 **Longitude:** -85 51 25.82418
Drainage: **Site Number:** 21T-004

SiteID: WEM-07-0011 **Sample Date:** 11/16/2020 **IDEM Sample #:** AB44693
Water Flow Type: Glide **Water Appearance:** Brown **Water Depth:** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %:** 0-20%
Sampler Comments: low flow

Lab ID #:	Result	Reporting Limit	Method
% Sat	26.2 %		ASTM D888-09(C)
DO	2.97 mg/L		ASTM D888-09(C)
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	410 umho/cm		SM2510B
Temperature	9.2 °C		SM2550B(2)
Turbidity (Hach)	16.2 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	18 mg/L	5	EPA 300.0
Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	5	I-3765-85
Solids, Total (TS)	320 mg/L	30	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	30	SM2540C
Sulfate	16 mg/L	5	EPA 300.0
Calcium (Total)	54 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	25 mg/L	10	SM5220C
Nitrogen, Ammonia	0.13 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.96 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.27 mg/L	0.05	SM4500P-E
TKN	0.77 mg/L	0.4	SM4500N(Org)-D
TOC	7.6 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: 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: 233.46 **Site Number:** 21T-008

SiteID: WEM070-0039 **Sample Date:** 12/15/2020 **IDEM Sample #:** AB44908
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	90.4 %		ASTM D888-09(C)
DO	11.83 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	428 umho/cm		SM2510B
Temperature	4 °C		SM2550B(2)
Turbidity (Hach)	5.27 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #:</u> 500-192616-2	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	17 mg/L	1	EPA 300.0
Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2.5 mg/L	5	SM2540D
Solids, Total (TS)	260 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	23 mg/L	1	EPA 300.0
Calcium (Total)	61 mg/L	0.2	EPA 200.7
Magnesium (Total)	15 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	1.7 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.059 mg/L	0.05	SM4500P-E
TKN	0.47 mg/L	0.4	SM4500N(Org)-D
TOC	2.4 mg/L	1	SM5310C

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

SiteID: WEM070-0039

Sample Date: 1/11/2021

IDEM Sample #: AB45026

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 %		ASTM D888-09(C)
DO	12.9 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	410 umho/cm		SM2510B
Temperature	2.2 °C		SM2550B(2)
Turbidity (Hach)	12.9 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-193651-2	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	14 mg/L	1	EPA 300.0
Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	5	SM2540D
Solids, Total (TS)	250 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	20 mg/L	1	EPA 300.0
Calcium (Total)	62 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	1.6 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.087 mg/L	0.05	SM4500P-E
TKN	0.48 mg/L	0.4	SM4500N(Org)-D
TOC	2.8 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: 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: 291.14 **Site Number:** 21T-009

SiteID: WEM070-0020 **Sample Date:** 11/16/2020 **IDEM Sample #:** AB44691
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	73.3 %		ASTM D888-09(C)
DO	8.46 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	400 umho/cm		SM2510B
Temperature	9.1 °C		SM2550B(2)
Turbidity (Hach)	11.3 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #:</u> 500-191243-4	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	14 mg/L	5	EPA 300.0
Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.3 mg/L	5	I-3765-85
Solids, Total (TS)	320 mg/L	30	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	30	SM2540C
Sulfate	23 mg/L	5	EPA 300.0
Calcium (Total)	57 mg/L	0.2	EPA 200.7
Magnesium (Total)	13 mg/L	0.1	EPA 200.7
COD	7.1 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.88 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.097 mg/L	0.05	SM4500P-E
TKN	0.66 mg/L	0.4	SM4500N(Org)-D
TOC	3.8 mg/L	1	SM5310C

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

SiteID: WEM070-0020

Sample Date: 12/15/2020

IDEM Sample #: AB44911

Water Flow Type Glide

Water Appearance Murky

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	87.2 %		ASTM D888-09(C)
DO	11.19 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	415 umho/cm		SM2510B
Temperature	4.7 °C		SM2550B(2)
Turbidity (Hach)	7.52 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: 500-192616-5	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	17 mg/L	1	EPA 300.0
Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3.5 mg/L	5	SM2540D
Solids, Total (TS)	260 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	170 mg/L	10	SM2540C
Sulfate	26 mg/L	1	EPA 300.0
Calcium (Total)	60 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	8.8 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.067 mg/L	0.05	SM4500P-E
TKN	0.57 mg/L	0.4	SM4500N(Org)-D
TOC	2.6 mg/L	1	SM5310C

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

SiteID: WEM070-0020

Sample Date: 1/11/2021

IDEM Sample #: AB45029

Water Flow Type Glide

Water Appearance Murky

Water Depth **Algae?**

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
	% Sat	90.7 %	ASTM D888-09(C)
	DO	12.52 mg/L	ASTM D888-09(C)
	pH (Field)	7.74 SU	EPA 150.2
	Specific Conductance (Field)	388 umho/cm	SM2510B
	Temperature	2 °C	SM2550B(2)
	Turbidity (Hach)	9.29 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #: 500-193651-5	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
	Chloride	14 mg/L	1	EPA 300.0
	Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	5.5 mg/L	5	SM2540D
	Solids, Total (TS)	260 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
	Sulfate	22 mg/L	1	EPA 300.0
	Calcium (Total)	61 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	0.17 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.093 mg/L	0.05	SM4500P-E
	TKN	0.49 mg/L	0.4	SM4500N(Org)-D
	TOC	3.1 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: 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: 363.63 **Site Number:** 21T-010

SiteID: WEM090-0015 **Sample Date:** 11/16/2020 **IDEM Sample #:** AB44692
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	75 %	ASTM D888-09(C)
	DO	8.66 mg/L	ASTM D888-09(C)
	pH (Field)	7.86 SU	EPA 150.2
	Specific Conductance (Field)	394 umho/cm	SM2510B
	Temperature	9 °C	SM2550B(2)
	Turbidity (Hach)	13 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	0 Lookup	Observation

<u>Lab ID #:</u> 500-191243-5	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>	
	Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
	Chloride	16 mg/L	5	EPA 300.0
	Hardness (as CaCO3)	190 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	6 mg/L	5	I-3765-85
	Solids, Total (TS)	300 mg/L	30	SM2540B
	Solids, Total Dissolved (TDS)	260 mg/L	30	SM2540C
	Sulfate	19 mg/L	5	EPA 300.0
	Calcium (Total)	55 mg/L	0.2	EPA 200.7
	Magnesium (Total)	13 mg/L	0.1	EPA 200.7
	COD	16 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.13 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.098 mg/L	0.05	SM4500P-E
	TKN	0.59 mg/L	0.4	SM4500N(Org)-D
	TOC	4.6 mg/L	1	SM5310C

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

SiteID: WEM090-0015

Sample Date: 12/15/2020

IDEM Sample #: AB44912

Water Flow Type Run

Water Appearance Murky

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	85.7 %		ASTM D888-09(C)
DO	11.05 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	413 umho/cm		SM2510B
Temperature	4.5 °C		SM2550B(2)
Turbidity (Hach)	7.81 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-192616-6	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	17 mg/L	1	EPA 300.0
Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	3.5 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	170 mg/L	10	SM2540C
Sulfate	25 mg/L	1	EPA 300.0
Calcium (Total)	59 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	0.14 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.071 mg/L	0.05	SM4500P-E
TKN	0.57 mg/L	0.4	SM4500N(Org)-D
TOC	2.9 mg/L	1	SM5310C

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

SiteID: WEM090-0015

Sample Date: 1/11/2021

IDEM Sample #: AB45030

Water Flow Type Run

Water Appearance Murky

Water Depth **Algae?**

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
	% Sat	89.3 %	ASTM D888-09(C)
	DO	12.43 mg/L	ASTM D888-09(C)
	pH (Field)	8.06 SU	EPA 150.2
	Specific Conductance (Field)	377 umho/cm	SM2510B
	Temperature	1.8 °C	SM2550B(2)
	Turbidity (Hach)	15.8 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #: 500-193651-6	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	140 mg/L	5	SM2320B
	Chloride	16 mg/L	1	EPA 300.0
	Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	8.5 mg/L	5	SM2540D
	Solids, Total (TS)	240 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
	Sulfate	21 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	0.17 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.11 mg/L	0.05	SM4500P-E
	TKN	0.43 mg/L	0.4	SM4500N(Org)-D
	TOC	3.6 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: 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: 18.19 **Site Number:** 21T-016

SiteID: WEM080-0013 **Sample Date:** 11/16/2020 **IDEM Sample #:** AB44689
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	40.6 %	ASTM D888-09(C)
	DO	4.66 mg/L	ASTM D888-09(C)
	pH (Field)	7.64 SU	EPA 150.2
	Specific Conductance (Field)	417 umho/cm	SM2510B
	Temperature	9.2 °C	SM2550B(2)
	Turbidity (Hach)	8.55 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	1 Lookup	Observation

<u>Lab ID #:</u> 500-191243-2	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>	
	Alkalinity (as CaCO3)	180 mg/L	10	SM2320B
	Chloride	15 mg/L	5	EPA 300.0
	Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	3 mg/L	5	I-3765-85
	Solids, Total (TS)	340 mg/L	30	SM2540B
	Solids, Total Dissolved (TDS)	290 mg/L	30	SM2540C
	Sulfate	16 mg/L	5	EPA 300.0
	Calcium (Total)	50 mg/L	0.2	EPA 200.7
	Magnesium (Total)	13 mg/L	0.1	EPA 200.7
	COD	19 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.17 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.33 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.096 mg/L	0.05	SM4500P-E
	TKN	0.49 mg/L	0.4	SM4500N(Org)-D
	TOC	5.5 mg/L	1	SM5310C

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

SiteID: WEM080-0013

Sample Date: 12/15/2020

IDEM Sample #: AB44910

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	72.6 %		ASTM D888-09(C)
DO	9.23 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	392 umho/cm		SM2510B
Temperature	4.9 °C		SM2550B(2)
Turbidity (Hach)	9.2 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-192616-4	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	140 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)	4 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	120 mg/L	10	SM2540C
Sulfate	23 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	16 mg/L	10	SM5220C
Nitrogen, Ammonia	0.11 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.68 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.098 mg/L	0.05	SM4500P-E
TKN	0.68 mg/L	0.4	SM4500N(Org)-D
TOC	4.8 mg/L	1	SM5310C

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

SitID: WEM080-0013

Sample Date: 1/11/2021

IDEM Sample #: AB45028

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	70.6 %		ASTM D888-09(C)
DO	9.8 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	252 umho/cm		SM2510B
Temperature	1.8 °C		SM2550B(2)
Turbidity (Hach)	9.93 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-193651-4	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	90 mg/L	5	SM2320B
Chloride	9.5 mg/L	1	EPA 300.0
Hardness (as CaCO3)	110 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6 mg/L	5	SM2540D
Solids, Total (TS)	160 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	200 mg/L	10	SM2540C
Sulfate	17 mg/L	1	EPA 300.0
Calcium (Total)	30 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.3 mg/L	0.1	EPA 200.7
COD	29 mg/L	10	SM5220C
Nitrogen, Ammonia	0.1 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.52 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
TKN	0.67 mg/L	0.4	SM4500N(Org)-D
TOC	7.9 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-07-0017 **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: **Site Number:** 21T-019

SiteID: WEM-07-0017 **Sample Date:** 11/16/2020 **IDEM Sample #:** AB44690
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	86.5 %		ASTM D888-09(C)
DO	10.35 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	372 umho/cm		SM2510B
Temperature	8.2 °C		SM2550B(2)
Turbidity (Hach)	5.84 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-191243-3	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	110 mg/L	5	SM2320B
Chloride	17 mg/L	5	EPA 300.0
Hardness (as CaCO3)	150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	< 5 mg/L	5	I-3765-85
Solids, Total (TS)	320 mg/L	30	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	30	SM2540C
Sulfate	48 mg/L	5	EPA 300.0
Calcium (Total)	43 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.1	EPA 200.7
COD	17 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	0.12 mg/L	0.05	SM4500P-E
TKN	0.7 mg/L	0.4	SM4500N(Org)-D
TOC	4.7 mg/L	1	SM5310C

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

SiteID: WEM-07-0017

Sample Date: 12/15/2020

IDEM Sample #: AB44909

Water Flow Type Run

Water Appearance Clear

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	94.7 %		ASTM D888-09(C)
DO	13.01 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	373 umho/cm		SM2510B
Temperature	2.2 °C		SM2550B(2)
Turbidity (Hach)	8.71 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-192616-3	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	110 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)	5.5 mg/L	5	SM2540D
Solids, Total (TS)	270 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	130 mg/L	10	SM2540C
Sulfate	49 mg/L	1	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	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.13 mg/L	0.05	SM4500P-E
TKN	0.53 mg/L	0.4	SM4500N(Org)-D
TOC	3.5 mg/L	1	SM5310C

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

SiteID: WEM-07-0017

Sample Date: 1/11/2021

IDEM Sample #: AB45027

Water Flow Type Run

Water Appearance Brown

Water Depth **Algae?**

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
	% Sat	94.4 %	ASTM D888-09(C)
	DO	13.23 mg/L	ASTM D888-09(C)
	pH (Field)	7.99 SU	EPA 150.2
	Specific Conductance (Field)	367 umho/cm	SM2510B
	Temperature	1.2 °C	SM2550B(2)
	Turbidity (Hach)	13.5 NTU	EPA 180.1
	Air Temp	1 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #: 500-193651-3	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	110 mg/L	5	SM2320B
	Chloride	19 mg/L	1	EPA 300.0
	Hardness (as CaCO3)	160 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	6.5 mg/L	5	SM2540D
	Solids, Total (TS)	240 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
	Sulfate	45 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	17 mg/L	10	SM5220C
	Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
	TKN	0.35 mg/L	0.4	SM4500N(Org)-D
	TOC	3.7 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: 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: 219.11 **Site Number:** 21T-023

SiteID: WEM070-0036 **Sample Date:** 11/16/2020 **IDEM Sample #:** AB44688
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	90.5 %		ASTM D888-09(C)
DO	10.56 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	396 umho/cm		SM2510B
Temperature	8.6 °C		SM2550B(2)
Turbidity (Hach)	3.44 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-191243-1	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	190 mg/L	10	SM2320B
Chloride	16 mg/L	5	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	1.7 mg/L	5	I-3765-85
Solids, Total (TS)	290 mg/L	30	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	30	SM2540C
Sulfate	24 mg/L	5	EPA 300.0
Calcium (Total)	57 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	0.28 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.85 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.07 mg/L	0.05	SM4500P-E
TKN	0.7 mg/L	0.4	SM4500N(Org)-D
TOC	3.5 mg/L	1	SM5310C

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

SiteID: WEM070-0036

Sample Date: 12/15/2020

IDEM Sample #: AB44907

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	94.9 %		ASTM D888-09(C)
DO	12.47 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	432 umho/cm		SM2510B
Temperature	4.1 °C		SM2550B(2)
Turbidity (Hach)	2.88 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-192616-1	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	5	SM2320B
Chloride	18 mg/L	1	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	2 mg/L	5	SM2540D
Solids, Total (TS)	250 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
Sulfate	23 mg/L	1	EPA 300.0
Calcium (Total)	58 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.1	EPA 200.7
COD	8.3 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.063 mg/L	0.05	SM4500P-E
TKN	0.54 mg/L	0.4	SM4500N(Org)-D
TOC	2.5 mg/L	1	SM5310C

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

SiteID: WEM070-0036

Sample Date: 1/11/2021

IDEM Sample #: AB45025

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	13 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	411 umho/cm		SM2510B
Temperature	1.9 °C		SM2550B(2)
Turbidity (Hach)	4.38 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-193651-1	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 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)	2 mg/L	5	SM2540D
Solids, Total (TS)	240 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	19 mg/L	1	EPA 300.0
Calcium (Total)	55 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.1	EPA 200.7
COD	8.7 mg/L	10	SM5220C
Nitrogen, Ammonia	0.15 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.085 mg/L	0.05	SM4500P-E
TKN	0.37 mg/L	0.4	SM4500N(Org)-D
TOC	3 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	