

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

**SiteID:** WBU-18-0004      **USGS Hydrologic Unit:** 051201111804  
**Stream Name:** Maria Creek      **County:** Knox  
**Description:** N Old 41      **Latitude:** 38 46 24.47793      **Longitude:** -87 28 21.95307  
**Drainage:**      **Site Number:** 20T-001

**SiteID:** WBU-18-0004      **Sample Date:** 11/18/2019      **IDEM Sample #:** AB40960  
**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	89.7 %		ASTM D888-09(C)
DO	11.31 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	734 umho/cm		SM2510B
Temperature	5.3 °C		SM2550B(2)
Turbidity (Hach)	6.44 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-173793-6	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	590 mg/L	5	SM2320B
Chloride	38 mg/L	4	EPA 300.0
Hardness (as CaCO3)	300 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	5	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	470 mg/L	10	SM2540C
Sulfate	92 mg/L	4	EPA 300.0
Calcium (Total)	80 mg/L	0.2	EPA 200.7
Magnesium (Total)	25 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	2.9 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.073 mg/L	0.05	SM4500P-E
TKN	0.48 mg/L	0.4	SM4500N(Org)-D
TOC	2.7 mg/L	1	SM5310C

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

**SiteID:** WBU-18-0004      **Sample Date:** 1/15/2020      **IDEM Sample #:** AB41176  
**Water Flow Type** Pool      **Water Appearance** Murky      **Water Depth**  **Algae?**  
**Water Flow (cf/sec):**  **Flow Estimated?**       **Aquatic Life?**      **Canopy Closed %** 0-20%  
**Sampler Comments:**

<b>Lab ID #:</b>	<b>Result</b>	<b>Reporting Limit</b>	<b>Method</b>
	% Sat	85.4 %	ASTM D888-09(C)
	DO	10.36 mg/L	ASTM D888-09(C)
	pH (Field)	7.77 SU	EPA 150.2
	Specific Conductance (Field)	450 umho/cm	SM2510B
	Temperature	7 °C	SM2550B(2)
	Turbidity (Hach)	55.9 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	9 Lookup	Observation
	Wind Strength	1 Lookup	Observation

<b>Lab ID #:</b> 500-176493-6	<b>Result</b>	<b>Reporting Limit</b>	<b>Method</b>	
	Alkalinity (as CaCO3)	150 mg/L	5	SM2320B
	Chloride	17 mg/L	2	EPA 300.0
	Hardness (as CaCO3)	210 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	35 mg/L	5	SM2540D
	Solids, Total (TS)	320 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
	Sulfate	34 mg/L	2	EPA 300.0
	Calcium (Total)	54 mg/L	0.2	EPA 200.7
	Magnesium (Total)	18 mg/L	0.1	EPA 200.7
	COD	8.2 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.17 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	3.7 mg/L	0.5	SM4500NO3-F
	Phosphorus, Total	0.16 mg/L	0.05	SM4500P-E
	TKN	0.58 mg/L	0.4	SM4500N(Org)-D
	TOC	2.7 mg/L	1	SM5310C

<b>Weather Code Definitions</b>			
<b>SC</b>	<b>WD</b>	<b>WS</b>	<b>AT</b>
<b>Sky Conditions</b>	<b>Wind Direction</b>	<b>Wind Strength</b>	<b>Air Temp</b>
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		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:** WBU-18-0007      **USGS Hydrologic Unit:** 051201111804  
**Stream Name:** Maria Creek      **County:** Knox  
**Description:** N P Perry Road      **Latitude:** 38 48 40.75368      **Longitude:** -87 25 4.32367  
**Drainage:**      **Site Number:** 20T-004

**SiteID:** WBU-18-0007      **Sample Date:** 11/18/2019      **IDEM Sample #:** AB40959  
**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	96.7 %		ASTM D888-09(C)
DO	11.98 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	792 umho/cm		SM2510B
Temperature	6.1 °C		SM2550B(2)
Turbidity (Hach)	6.85 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #:</u> 500-173793-5	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	210 mg/L	5	SM2320B
Chloride	45 mg/L	4	EPA 300.0
Hardness (as CaCO3)	300 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6.5 mg/L	5	SM2540D
Solids, Total (TS)	540 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	490 mg/L	10	SM2540C
Sulfate	120 mg/L	4	EPA 300.0
Calcium (Total)	79 mg/L	0.2	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7
COD	8.2 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.065 mg/L	0.05	SM4500P-E
TKN	0.41 mg/L	0.4	SM4500N(Org)-D
TOC	2.2 mg/L	1	SM5310C

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

SiteID: WBU-18-0007

Sample Date: 1/15/2020

IDEM Sample #: AB41175

Water Flow Type Run

Water Appearance Brown

Water Depth  Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	89.9 %		ASTM D888-09(C)
DO	10.69 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	481 umho/cm		SM2510B
Temperature	7.9 °C		SM2550B(2)
Turbidity (Hach)	83.9 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #: 500-176493-5	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	5	SM2320B
Chloride	19 mg/L	2	EPA 300.0
Hardness (as CaCO3)	230 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	100 mg/L	5	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	40 mg/L	2	EPA 300.0
Calcium (Total)	57 mg/L	0.2	EPA 200.7
Magnesium (Total)	20 mg/L	0.1	EPA 200.7
COD	16 mg/L	10	SM5220C
Nitrogen, Ammonia	0.49 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	4.2 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.18 mg/L	0.05	SM4500P-E
TKN	< 0.4 mg/L	0.4	SM4500N(Org)-D
TOC	2.3 mg/L	1	SM5310C

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		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:** WBU-18-0008      **USGS Hydrologic Unit:** 051201111802  
**Stream Name:** Maria Creek      **County:** Knox  
**Description:** N Risley Road      **Latitude:** 38 49 21.98872      **Longitude:** -87 23 29.96194  
**Drainage:**      **Site Number:** 20T-005

**SiteID:** WBU-18-0008      **Sample Date:** 11/18/2019      **IDEM Sample #:** AB40957  
**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	85.3 %		ASTM D888-09(C)
DO	10.75 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	648 umho/cm		SM2510B
Temperature	5.3 °C		SM2550B(2)
Turbidity (Hach)	19.3 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #:</u> 500-173793-3	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	230 mg/L	5	SM2320B
Chloride	23 mg/L	1	EPA 300.0
Hardness (as CaCO3)	290 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	8.5 mg/L	5	SM2540D
Solids, Total (TS)	440 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	74 mg/L	2	EPA 300.0
Calcium (Total)	72 mg/L	0.2	EPA 200.7
Magnesium (Total)	26 mg/L	0.1	EPA 200.7
COD	15 mg/L	10	SM5220C
Nitrogen, Ammonia	0.21 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.4 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.079 mg/L	0.05	SM4500P-E
TKN	0.47 mg/L	0.4	SM4500N(Org)-D
TOC	2.9 mg/L	1	SM5310C

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

SiteID: WBU-18-0008      Sample Date: 1/15/2020      IDEM Sample #: AB41173  
 Water Flow Type Run      Water Appearance Brown      Water Depth  Algae?  
 Water Flow (cf/sec):  Flow Estimated?       Aquatic Life?      Canopy Closed % 0-20%  
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	90.4 %		ASTM D888-09(C)
DO	10.84 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	448 umho/cm		SM2510B
Temperature	7.7 °C		SM2550B(2)
Turbidity (Hach)	108 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: 500-176493-3	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	140 mg/L	5	SM2320B
Chloride	18 mg/L	2	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	100 mg/L	5.7	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	240 mg/L	10	SM2540C
Sulfate	34 mg/L	2	EPA 300.0
Calcium (Total)	50 mg/L	0.2	EPA 200.7
Magnesium (Total)	19 mg/L	0.1	EPA 200.7
COD	9.3 mg/L	10	SM5220C
Nitrogen, Ammonia	0.14 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	4.5 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
TKN	0.77 mg/L	0.4	SM4500N(Org)-D
TOC	2.5 mg/L	1	SM5310C

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		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:** WBU-18-0013      **USGS Hydrologic Unit:** 051201111802  
**Stream Name:** Maria Creek      **County:** Knox  
**Description:** County Road 900 N      **Latitude:** 38 51 30.84594      **Longitude:** -87 21 12.18373  
**Drainage:**      **Site Number:** 20T-009

**SiteID:** WBU-18-0013      **Sample Date:** 11/18/2019      **IDEM Sample #:** AB40956  
**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	90.2 %		ASTM D888-09(C)
DO	11.47 mg/L		ASTM D888-09(C)
pH (Field)	7.93 SU		EPA 150.2
Specific Conductance (Field)	724 umho/cm		SM2510B
Temperature	4.7 °C		SM2550B(2)
Turbidity (Hach)	15.2 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #:</u> 500-173793-2	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	200 mg/L	5	SM2320B
Chloride	25 mg/L	1	EPA 300.0
Hardness (as CaCO3)	230 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9 mg/L	5	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
Sulfate	140 mg/L	4	EPA 300.0
Calcium (Total)	57 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	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.089 mg/L	0.05	SM4500P-E
TKN	0.28 mg/L	0.4	SM4500N(Org)-D
TOC	3.6 mg/L	1	SM5310C

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

SiteID: WBU-18-0013      Sample Date: 1/15/2020      IDEM Sample #: AB41172  
 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	95.3 %		ASTM D888-09(C)
DO	11.6 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	378 umho/cm		SM2510B
Temperature	6.9 °C		SM2550B(2)
Turbidity (Hach)	173 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	6 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: 500-176493-2	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	100 mg/L	5	SM2320B
Chloride	17 mg/L	2	EPA 300.0
Hardness (as CaCO3)	150 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	140 mg/L	7.7	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	38 mg/L	2	EPA 300.0
Calcium (Total)	36 mg/L	0.2	EPA 200.7
Magnesium (Total)	15 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	3.6 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.19 mg/L	0.05	SM4500P-E
TKN	0.75 mg/L	0.4	SM4500N(Org)-D
TOC	2.7 mg/L	1	SM5310C

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy		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:** WBU190-0001      **USGS Hydrologic Unit:** 051201111803  
**Stream Name:** Marsh Creek      **County:** Knox  
**Description:** E Springtown Road      **Latitude:** 38 49 42.46832      **Longitude:** -87 23 59.53848  
**Drainage:** 23      **Site Number:** 20T-010

**SiteID:** WBU190-0001      **Sample Date:** 11/18/2019      **IDEM Sample #:** AB40958  
**Water Flow Type** Run      **Water Appearance** Clear      **Water Depth**  **Algae?**  
**Water Flow (cf/sec):**  **Flow Estimated?**       **Aquatic Life?**      **Canopy Closed %** 0-20%  
**Sampler Comments:** Multiple field tile inputs

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	95.1 %		ASTM D888-09(C)
DO	11.71 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	982 umho/cm		SM2510B
Temperature	6.3 °C		SM2550B(2)
Turbidity (Hach)	5.08 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #:</u> 500-173793-4	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	580 mg/L	5	SM2320B
Chloride	71 mg/L	5	EPA 300.0
Hardness (as CaCO3)	340 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	10 mg/L	5	SM2540D
Solids, Total (TS)	660 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	690 mg/L	10	SM2540C
Sulfate	190 mg/L	5	EPA 300.0
Calcium (Total)	94 mg/L	0.2	EPA 200.7
Magnesium (Total)	25 mg/L	0.1	EPA 200.7
COD	7.7 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.8 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.052 mg/L	0.05	SM4500P-E
TKN	0.39 mg/L	0.4	SM4500N(Org)-D
TOC	1.8 mg/L	1	SM5310C

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

SiteID: WBU190-0001      Sample Date: 1/15/2020      IDEM Sample #: AB41174  
 Water Flow Type Run      Water Appearance Murky      Water Depth  Algae?  
 Water Flow (cf/sec):  Flow Estimated?       Aquatic Life?      Canopy Closed % 0-20%  
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	91.3 %		ASTM D888-09(C)
DO	10.78 mg/L		ASTM D888-09(C)
pH (Field)	7.93 SU		EPA 150.2
Specific Conductance (Field)	543 umho/cm		SM2510B
Temperature	7.9 °C		SM2550B(2)
Turbidity (Hach)	29.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #: 500-176493-4	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
Chloride	22 mg/L	2	EPA 300.0
Hardness (as CaCO3)	260 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	60 mg/L	5	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
Sulfate	55 mg/L	2	EPA 300.0
Calcium (Total)	70 mg/L	0.2	EPA 200.7
Magnesium (Total)	22 mg/L	0.1	EPA 200.7
COD	9.3 mg/L	10	SM5220C
Nitrogen, Ammonia	0.21 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.9 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.14 mg/L	0.05	SM4500P-E
TKN	0.61 mg/L	0.4	SM4500N(Org)-D
TOC	2.1 mg/L	1	SM5310C

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy		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:** WBU190-0002      **USGS Hydrologic Unit:** 051201111801  
**Stream Name:** Maria Creek      **County:** Knox  
**Description:** CR 1050 N/Freelandville Road      **Latitude:** 38 52 54.21809      **Longitude:** -87 20 48.04908  
**Drainage:** 22      **Site Number:** 20T-016

**SiteID:** WBU190-0002      **Sample Date:** 11/18/2019      **IDEM Sample #:** AB40955  
**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	83.6 %		ASTM D888-09(C)
DO	11.04 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	977 umho/cm		SM2510B
Temperature	3.6 °C		SM2550B(2)
Turbidity (Hach)	13 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID #:</u> 500-173793-1	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	190 mg/L	5	SM2320B
Chloride	23 mg/L	1	EPA 300.0
Hardness (as CaCO3)	200 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	5	SM2540D
Solids, Total (TS)	670 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	590 mg/L	10	SM2540C
Sulfate	270 mg/L	10	EPA 300.0
Calcium (Total)	47 mg/L	0.2	EPA 200.7
Magnesium (Total)	21 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	0.17 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.06 mg/L	0.05	SM4500P-E
TKN	0.49 mg/L	0.4	SM4500N(Org)-D
TOC	5 mg/L	1	SM5310C

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

**SiteID:** WBU190-0002      **Sample Date:** 1/15/2020      **IDEM Sample #:** AB41171  
**Water Flow Type** Run      **Water Appearance** Brown      **Water Depth**  **Algae?**  
**Water Flow (cf/sec):**  **Flow Estimated?**       **Aquatic Life?**      **Canopy Closed %** 0-20%  
**Sampler Comments:** Adjacent ditch recently dredged

<b>Lab ID #:</b>	<b>Result</b>	<b>Reporting Limit</b>	<b>Method</b>
	% Sat	91.8 %	ASTM D888-09(C)
	DO	11.38 mg/L	ASTM D888-09(C)
	pH (Field)	7.06 SU	EPA 150.2
	Specific Conductance (Field)	331 umho/cm	SM2510B
	Temperature	6.1 °C	SM2550B(2)
	Turbidity (Hach)	273 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	6 Lookup	Observation
	Wind Direction	9 Lookup	Observation
	Wind Strength	1 Lookup	Observation

<b>Lab ID #:</b> 500-176493-1	<b>Result</b>	<b>Reporting Limit</b>	<b>Method</b>	
	Alkalinity (as CaCO3)	73 mg/L	5	SM2320B
	Chloride	15 mg/L	2	EPA 300.0
	Hardness (as CaCO3)	110 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	190 mg/L	8	SM2540D
	Solids, Total (TS)	380 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
	Sulfate	53 mg/L	2	EPA 300.0
	Calcium (Total)	26 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	< 0.2 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	2.3 mg/L	0.5	SM4500NO3-F
	Phosphorus, Total	0.23 mg/L	0.05	SM4500P-E
	TKN	0.81 mg/L	0.4	SM4500N(Org)-D
	TOC	3.1 mg/L	1	SM5310C

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