

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

SiteID: LMG-05-0002 **USGS Hydrologic Unit:** 040400010509
Stream Name: Burns Ditch **County:** Porter
Description: US 20 **Latitude:** 41 35 37.03501 **Longitude:** -87 13 14.49068
Drainage: 164.931 **Site Number:** 13T-001

SiteID: LMG-05-0002 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14602
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	64.1 %		ASTM D888-09(C)
DO	5.42 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	831 umho/cm		SM2510B
Temperature	23.56 °C		SM2550B(2)
Turbidity (Hach)	12.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	-22.661 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> A994684	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	230 mg/L	20	EPA 310.2
Chloride	93 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	300 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	12 mg/L	1	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
Sulfate	71 mg/L	2.5	EPA 300.0
COD	16 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.28 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.13 mg/L	0.05	EPA 365.1
TKN	1.3 mg/L	0.3	SM4500N(Org)-D
TOC	7.1 mg/L	2	SM5310C

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SiteID: LMG-05-0002 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12811
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	65.8 %		ASTM D888-09(C)
DO	5.52 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	862 umho/cm		SM2510B
Temperature	23.99 °C		SM2550B(2)
Turbidity	9.7 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12811			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	108.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0002 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12850
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	57.6 %		ASTM D888-09(C)
DO	5.41 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	875 umho/cm		SM2510B
Temperature	18.25 °C		SM2550B(2)
Turbidity	11.1 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12850			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1986.3 MPN/100mL	1	SM9223B

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SiteID: LMG-05-0002 Sample Date: 9/23/2013 IDEM Sample #: AB12889
 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	65.4 %		ASTM D888-09(C)
DO	6.28 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	580 umho/cm		SM2510B
Temperature	17.26 °C		SM2550B(2)
Turbidity	13.2 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12889	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	727 MPN/100mL	1	SM9223B

SiteID: LMG-05-0002 Sample Date: 9/30/2013 IDEM Sample #: AB12928
 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	74.8 %		ASTM D888-09(C)
DO	7.12 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	683 umho/cm		SM2510B
Temperature	17.64 °C		SM2550B(2)
Turbidity	9.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12928	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	131.4 MPN/100mL	1	SM9223B

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SiteID: LMG-05-0002 Sample Date: 10/7/2013 IDEM Sample #: AB12967
 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	67.3 %		ASTM D888-09(C)
DO	6.42 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	737 umho/cm		SM2510B
Temperature	17.57 °C		SM2550B(2)
Turbidity	10.2 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12967	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	272.3 MPN/100mL	1	SM9223B

SiteID: LMG-05-0002 Sample Date: 10/8/2013 IDEM Sample #: AB14875
 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	83.8 %		ASTM D888-09(C)
DO	8.03 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	782 umho/cm		SM2510B
Temperature	17.31 °C		SM2550B(2)
Turbidity (Hach)	9.11 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	66.245 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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Lab ID #: A997685	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	190 mg/L	10	EPA 310.2
Chloride	83 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	260 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	16 mg/L	1	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	71 mg/L	2.5	EPA 300.0
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.14 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.22 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.1 mg/L	0.05	EPA 365.1
TKN	0.72 mg/L	0.3	SM4500N(Org)-D
TOC	7.7 mg/L	2	SM5310C

SiteID: LMG-05-0002 **Sample Date:** 11/5/2013 **IDEM Sample #:** AB14957
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	79.9 %		ASTM D888-09(C)
DO	9.03 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	635 umho/cm		SM2510B
Temperature	9.87 °C		SM2550B(2)
Turbidity (Hach)	13.5 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	129.84 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AA00642	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	10	EPA 310.2
Chloride	63 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	220 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	11 mg/L	1	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	64 mg/L	2.5	EPA 300.0
COD	28 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.14 mg/L	0.05	EPA 365.1
TKN	0.95 mg/L	0.3	SM4500N(Org)-D
TOC	9.7 mg/L	1	SM5310C

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SiteID: LMG-05-0002 **Sample Date:** 12/10/2013 **IDEM Sample #:** AB15261
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Water chemistry only, no flow due to ice.

Lab ID #:	Result	Reporting Limit	Method
% Sat	87.2 %		ASTM D888-09(C)
DO	12.85 mg/L		ASTM D888-09(C)
pH (Field)	7.07 SU		EPA 150.2
Specific Conductance (Field)	1030 umho/cm		SM2510B
Temperature	-0.35 °C		SM2550B(2)
Turbidity (Hach)	6.65 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AA04578	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	50	EPA 310.2
Chloride	110 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	380 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	3 mg/L	1	SM2540D
Solids, Total (TS)	630 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	570 mg/L	10	SM2540C
Sulfate	97 mg/L	2.5	EPA 300.0
COD	23 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.16 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.1 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.13 mg/L	0.05	EPA 365.1
TKN	1.1 mg/L	0.3	SM4500N(Org)-D
TOC	7.1 mg/L	5	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	

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SiteID: LMG-05-0003 **USGS Hydrologic Unit:** 040400010509
Stream Name: Willow Creek **County:** Porter
Description: Clem Road **Latitude:** 41 35 17.82917 **Longitude:** -87 12 15.90561
Drainage: 8.556 **Site Number:** 13T-002

SiteID: LMG-05-0003 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14613
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	73.2 %		ASTM D888-09(C)
DO	6.87 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	1124 umho/cm		SM2510B
Temperature	18.23 °C		SM2550B(2)
Turbidity (Hach)	4.19 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> A994685	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	260 mg/L	20	EPA 310.2
Chloride	180 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	350 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	1 mg/L	1	SM2540D
Solids, Total (TS)	660 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	630 mg/L	10	SM2540C
Sulfate	57 mg/L	1.3	EPA 300.0
COD	12 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.35 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.067 mg/L	0.05	EPA 365.1
TKN	0.61 mg/L	0.3	SM4500N(Org)-D
TOC	3.3 mg/L	2	SM5310C

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SiteID: LMG-05-0003 Sample Date: 9/9/2013 IDEM Sample #: AB12822
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	75.6 %		ASTM D888-09(C)
DO	7.04 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	1171 umho/cm		SM2510B
Temperature	18.68 °C		SM2550B(2)
Turbidity	2.3 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12822	Result	Reporting Limit	Method
E. coli	290.9 MPN/100mL	1	SM9223B

Lab ID #: AB12822a	Result	Reporting Limit	Method
Coliforms (Total)	24196 MPN/100mL	10	SM9223B

SiteID: LMG-05-0003 Sample Date: 9/16/2013 IDEM Sample #: AB12861
 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	74.8 %		ASTM D888-09(C)
DO	7.58 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	1040 umho/cm		SM2510B
Temperature	14.6 °C		SM2550B(2)
Turbidity	7 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12861	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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SiteID: LMG-05-0003 **Sample Date:** 9/23/2013 **IDEM Sample #:** AB12900
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	77.6 %		ASTM D888-09(C)
DO	8.12 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	1116 umho/cm		SM2510B
Temperature	13.17 °C		SM2550B(2)
Turbidity	4.8 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12900	Result	Reporting Limit	Method
E. coli	387.3 MPN/100mL	1	SM9223B

Lab ID #: AB12900a	Result	Reporting Limit	Method
Coliforms (Total)	24196 MPN/100mL	10	SM9223B

SiteID: LMG-05-0003 **Sample Date:** 9/30/2013 **IDEM Sample #:** AB12939
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	71.4 %		ASTM D888-09(C)
DO	7.34 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	1149 umho/cm		SM2510B
Temperature	13.9 °C		SM2550B(2)
Turbidity	4.7 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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Lab ID #:	Result	Reporting Limit	Method
AB12939			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1553.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0003 **Sample Date:** 10/7/2013 **IDEM Sample #:** AB12978
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	73.4 %		ASTM D888-09(C)
DO	7.64 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	814 umho/cm		SM2510B
Temperature	13.46 °C		SM2550B(2)
Turbidity	3.5 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
AB12978			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	866.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0003 **Sample Date:** 10/8/2013 **IDEM Sample #:** AB14886
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	83.3 %		ASTM D888-09(C)
DO	8.23 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	999 umho/cm		SM2510B
Temperature	14.58 °C		SM2550B(2)
Turbidity (Hach)	4.02 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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Lab ID #: A997686	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	230 mg/L	50	EPA 310.2
	Chloride	150 mg/L	2.5	EPA 300.0
	Hardness (as CaCO3)	290 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	1 mg/L	1	SM2540D
	Solids, Total (TS)	530 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	510 mg/L	10	SM2540C
	Sulfate	53 mg/L	1.3	EPA 300.0
	COD	12 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.36 mg/L	0.01	EPA 353.2
	Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
	TKN	0.5 mg/L	0.3	SM4500N(Org)-D
	TOC	4.6 mg/L	2	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
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SiteID: LMG-05-0004 **USGS Hydrologic Unit:** 040400010509
Stream Name: Willow Creek **County:** Porter
Description: Stone Avenue **Latitude:** 41 33 53.72915 **Longitude:** -87 11 20.59828
Drainage: 5.350 **Site Number:** 13T-003

SiteID: LMG-05-0004 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14624
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 %	ASTM D888-09(C)
	DO	8 mg/L	ASTM D888-09(C)
	pH (Field)	7.91 SU	EPA 150.2
	Specific Conductance (Field)	575 umho/cm	SM2510B
	Temperature	21.18 °C	SM2550B(2)
	Turbidity (Hach)	8.17 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> A994686	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	Alkalinity (as CaCO3)	150 mg/L	EPA 310.2
	Chloride	61 mg/L	EPA 300.0
	Hardness (as CaCO3)	210 mg/L	SM2340B
	Solids, Suspended Total, (TSS)	4 mg/L	SM2540D
	Solids, Total (TS)	320 mg/L	SM2540B
	Solids, Total Dissolved (TDS)	300 mg/L	SM2540C
	Sulfate	44 mg/L	EPA 300.0
	COD	14 mg/L	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.33 mg/L	EPA 353.2
	Phosphorus, Total	0.084 mg/L	EPA 365.1
	TKN	0.54 mg/L	SM4500N(Org)-D
	TOC	3.3 mg/L	SM5310C

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

SiteID: LMG-05-0004 Sample Date: 9/9/2013 IDEM Sample #: AB12833
 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	92.9 %		ASTM D888-09(C)
DO	8.14 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	594 umho/cm		SM2510B
Temperature	21.74 °C		SM2550B(2)
Turbidity	7.9 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12833	Result	Reporting Limit	Method
E. coli	980.4 MPN/100mL	1	SM9223B

Lab ID #: AB12833a	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: LMG-05-0004 Sample Date: 9/16/2013 IDEM Sample #: AB12872
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	76.5 %		ASTM D888-09(C)
DO	7.47 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	800 umho/cm		SM2510B
Temperature	16.38 °C		SM2550B(2)
Turbidity	8 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12872	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1299.7 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0004 **Sample Date:** 9/23/2013 **IDEM Sample #:** AB12911
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	86.6 %		ASTM D888-09(C)
DO	8.8 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	882 umho/cm		SM2510B
Temperature	14.51 °C		SM2550B(2)
Turbidity	4.9 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12911	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	178.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0004 **Sample Date:** 9/30/2013 **IDEM Sample #:** AB12950
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	84.2 %		ASTM D888-09(C)
DO	8.42 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	860 umho/cm		SM2510B
Temperature	15.24 °C		SM2550B(2)
Turbidity	3.6 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12950	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	238.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0004 Sample Date: 10/7/2013 IDEM Sample #: AB12989
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	77 %		ASTM D888-09(C)
DO	7.91 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	588 umho/cm		SM2510B
Temperature	14.07 °C		SM2550B(2)
Turbidity	6 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12989	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	2419.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0004 Sample Date: 10/8/2013 IDEM Sample #: AB14897
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	86 %		ASTM D888-09(C)
DO	8.53 mg/L		ASTM D888-09(C)
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	688 umho/cm		SM2510B
Temperature	15.58 °C		SM2550B(2)
Turbidity (Hach)	4.44 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

Lab ID #: A997687	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	150 mg/L	10	EPA 310.2
	Chloride	75 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	210 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	2 mg/L	1	SM2540D
	Solids, Total (TS)	350 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	51 mg/L	1.3	EPA 300.0
	COD	17 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.35 mg/L	0.01	EPA 353.2
	Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
	TKN	0.55 mg/L	0.3	SM4500N(Org)-D
	TOC	4.8 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: LMG-05-0006 **USGS Hydrologic Unit:** 040400010508
Stream Name: Deep River **County:** Lake
Description: 29th Avenue **Latitude:** 41 33 56.09423 **Longitude:** -87 17 39.74435
Drainage: 150.342 **Site Number:** 13T-005

SiteID: LMG-05-0006 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14632
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	84.7 %		ASTM D888-09(C)
DO	7.08 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	737 umho/cm		SM2510B
Temperature	24.29 °C		SM2550B(2)
Turbidity (Hach)	9.23 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> A994687	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	240 mg/L	20	EPA 310.2
Chloride	64 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	300 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	8 mg/L	1	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	50 mg/L	1.3	EPA 300.0
COD	21 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.074 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.13 mg/L	0.05	EPA 365.1
TKN	1.1 mg/L	0.3	SM4500N(Org)-D
TOC	6.4 mg/L	1	SM5310C

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

SiteID: LMG-05-0006 Sample Date: 9/9/2013 IDEM Sample #: AB12841
 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	86.4 %		ASTM D888-09(C)
DO	7.17 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	766 umho/cm		SM2510B
Temperature	24.68 °C		SM2550B(2)
Turbidity	7.5 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12841	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	15.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0006 Sample Date: 9/16/2013 IDEM Sample #: AB12880
 Water Flow Type Glide Water Appearance Green Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	89.1 %		ASTM D888-09(C)
DO	8.16 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	754 umho/cm		SM2510B
Temperature	19.57 °C		SM2550B(2)
Turbidity	9.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12880	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	27.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0006 **Sample Date:** 9/23/2013 **IDEM Sample #:** AB12919
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	89.8 %		ASTM D888-09(C)
DO	8.38 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	508 umho/cm		SM2510B
Temperature	18.6 °C		SM2550B(2)
Turbidity	12.1 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12919			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	110.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0006 **Sample Date:** 9/30/2013 **IDEM Sample #:** AB12958
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	105.2 %		ASTM D888-09(C)
DO	9.78 mg/L		ASTM D888-09(C)
pH (Field)	8.34 SU		EPA 150.2
Specific Conductance (Field)	550 umho/cm		SM2510B
Temperature	18.81 °C		SM2550B(2)
Turbidity	7.8 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12958			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	34.1 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0006 Sample Date: 10/7/2013 IDEM Sample #: AB12997
 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	84.6 %		ASTM D888-09(C)
DO	8 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	647 umho/cm		SM2510B
Temperature	17.94 °C		SM2550B(2)
Turbidity	9.8 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12997	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	111.9 MPN/100mL	1	SM9223B

SiteID: LMG-05-0006 Sample Date: 10/8/2013 IDEM Sample #: AB14905
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	93.2 %		ASTM D888-09(C)
DO	8.81 mg/L		ASTM D888-09(C)
pH (Field)	8.06 SU		EPA 150.2
Specific Conductance (Field)	689 umho/cm		SM2510B
Temperature	17.85 °C		SM2550B(2)
Turbidity (Hach)	8.59 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 #: A997688	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	190 mg/L	10	EPA 310.2
	Chloride	61 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	250 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	9 mg/L	1	SM2540D
	Solids, Total (TS)	410 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	55 mg/L	1.3	EPA 300.0
	COD	22 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.67 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.083 mg/L	0.05	EPA 365.1
	TKN	0.91 mg/L	0.3	SM4500N(Org)-D
	TOC	6.4 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	

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

SiteID: LMG-05-0007 **USGS Hydrologic Unit:** 040400010508
Stream Name: Deep River **County:** Lake
Description: Liverpool Road **Latitude:** 41 33 46.16178 **Longitude:** -87 17 26.81088
Drainage: 150.171 **Site Number:** 13T-006

SiteID: LMG-05-0007 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12842
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	81.9 %		ASTM D888-09(C)
DO	6.75 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	765 umho/cm		SM2510B
Temperature	25.04 °C		SM2550B(2)
Turbidity	5.4 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	21.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0007 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14633
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	74.9 %		ASTM D888-09(C)
DO	6.25 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	739 umho/cm		SM2510B
Temperature	24.4 °C		SM2550B(2)
Turbidity (Hach)	7.01 NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Flow	21.916 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

Lab ID #: A994688	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	20	EPA 310.2
Chloride	66 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	280 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	1	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	51 mg/L	1.3	EPA 300.0
COD	25 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.055 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.11 mg/L	0.05	EPA 365.1
TKN	0.8 mg/L	0.3	SM4500N(Org)-D
TOC	6.4 mg/L	1	SM5310C

SiteID: LMG-05-0007 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12881

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	63.7 %		ASTM D888-09(C)
DO	5.83 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	753 umho/cm		SM2510B
Temperature	19.55 °C		SM2550B(2)
Turbidity	7.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12881	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	35.9 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0007 Sample Date: 9/23/2013 IDEM Sample #: AB12920
 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	65 %		ASTM D888-09(C)
DO	6.03 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	507 umho/cm		SM2510B
Temperature	18.89 °C		SM2550B(2)
Turbidity	9.3 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12920	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	104.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0007 Sample Date: 9/30/2013 IDEM Sample #: AB12959
 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	114.9 %		ASTM D888-09(C)
DO	10.63 mg/L		ASTM D888-09(C)
pH (Field)	8.38 SU		EPA 150.2
Specific Conductance (Field)	376 umho/cm		SM2510B
Temperature	19.12 °C		SM2550B(2)
Turbidity	4.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12959	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	29.5 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0007 Sample Date: 10/7/2013 IDEM Sample #: AB12998
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	59.5 %		ASTM D888-09(C)
DO	5.65 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	648 umho/cm		SM2510B
Temperature	17.77 °C		SM2550B(2)
Turbidity	7.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12998	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	151.5 MPN/100mL	1	SM9223B

SiteID: LMG-05-0007 Sample Date: 10/8/2013 IDEM Sample #: AB14906
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	97.6 %		ASTM D888-09(C)
DO	8.98 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	616 umho/cm		SM2510B
Temperature	19.07 °C		SM2550B(2)
Turbidity (Hach)	7.34 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	104.6 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

Lab ID #: A997689	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	190 mg/L	10	EPA 310.2
Chloride	58 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	250 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	1	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
Sulfate	52 mg/L	1.3	EPA 300.0
COD	24 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.71 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.066 mg/L	0.05	EPA 365.1
TKN	1 mg/L	0.3	SM4500N(Org)-D
TOC	6.4 mg/L	1	SM5310C

SiteID: LMG-05-0007 **Sample Date:** 11/5/2013 **IDEM Sample #:** AB14958

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	57.8 %		ASTM D888-09(C)
DO	6.54 mg/L		ASTM D888-09(C)
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	570 umho/cm		SM2510B
Temperature	9.78 °C		SM2550B(2)
Turbidity (Hach)	13.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	109.25 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AA00643	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	10	EPA 310.2
Chloride	50 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	210 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	6 mg/L	1	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
Sulfate	55 mg/L	2.5	EPA 300.0
COD	24 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.12 mg/L	0.05	EPA 365.1
TKN	1.3 mg/L	0.3	SM4500N(Org)-D
TOC	10 mg/L	1	SM5310C

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

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: LMG-05-0008 **USGS Hydrologic Unit:** 040400010508
Stream Name: Tributary of Deep River **County:** Lake
Description: Shelby Street **Latitude:** 41 33 31.78599 **Longitude:** -87 14 10.86231
Drainage: 3.862 **Site Number:** 13T-007

SiteID: LMG-05-0008 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14634
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	47.4 %	ASTM D888-09(C)
	DO	4.06 mg/L	ASTM D888-09(C)
	pH (Field)	7.66 SU	EPA 150.2
	Specific Conductance (Field)	957 umho/cm	SM2510B
	Temperature	20.11 °C	SM2550B(2)
	Turbidity (Hach)	11.3 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> A994689	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	Alkalinity (as CaCO3)	310 mg/L	EPA 310.2
	Chloride	100 mg/L	EPA 300.0
	Hardness (as CaCO3)	420 mg/L	SM2340B
	Solids, Suspended Total, (TSS)	9 mg/L	SM2540D
	Solids, Total (TS)	580 mg/L	SM2540B
	Solids, Total Dissolved (TDS)	530 mg/L	SM2540C
	Sulfate	68 mg/L	EPA 300.0
	COD	20 mg/L	EPA 410.4
	Nitrogen, Ammonia	0.19 mg/L	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.52 mg/L	EPA 353.2
	Phosphorus, Total	0.12 mg/L	EPA 365.1
	TKN	0.63 mg/L	SM4500N(Org)-D
	TOC	4 mg/L	SM5310C

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

SiteID: LMG-05-0008 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12843
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	35.4 %		ASTM D888-09(C)
DO	3.17 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	989 umho/cm		SM2510B
Temperature	20.68 °C		SM2550B(2)
Turbidity	23.6 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12843			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	325.5 MPN/100mL	1	SM9223B

SiteID: LMG-05-0008 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12882
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	69.7 %		ASTM D888-09(C)
DO	6.99 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	1000 umho/cm		SM2510B
Temperature	15.19 °C		SM2550B(2)
Turbidity	4.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12882			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	686.7 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0008 Sample Date: 9/23/2013 IDEM Sample #: AB12921
 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	73 %		ASTM D888-09(C)
DO	7.4 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	788 umho/cm		SM2510B
Temperature	14.66 °C		SM2550B(2)
Turbidity	5.9 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12921	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: LMG-05-0008 Sample Date: 9/30/2013 IDEM Sample #: AB12960
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	64.1 %		ASTM D888-09(C)
DO	6.51 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	890 umho/cm		SM2510B
Temperature	14.54 °C		SM2550B(2)
Turbidity	3.2 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12960	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0008 Sample Date: 10/7/2013 IDEM Sample #: AB12999
 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	67 %		ASTM D888-09(C)
DO	6.83 mg/L		ASTM D888-09(C)
pH (Field)	7.55 SU		EPA 150.2
Specific Conductance (Field)	759 umho/cm		SM2510B
Temperature	14.36 °C		SM2550B(2)
Turbidity	4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12999	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0008 Sample Date: 10/8/2013 IDEM Sample #: AB14907
 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	80.9 %		ASTM D888-09(C)
DO	8.19 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	778 umho/cm		SM2510B
Temperature	14.74 °C		SM2550B(2)
Turbidity (Hach)	5.31 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

Lab ID #: A997690	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	230 mg/L	20	EPA 310.2
	Chloride	71 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	320 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	4 mg/L	1	SM2540D
	Solids, Total (TS)	440 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
	Sulfate	53 mg/L	1.3	EPA 300.0
	COD	20 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.73 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.1 mg/L	0.05	EPA 365.1
	TKN	0.32 mg/L	0.3	SM4500N(Org)-D
	TOC	5.2 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: LMG030-0008 **USGS Hydrologic Unit:** 040400010507
Stream Name: Deep River **County:** Lake
Description: Ridge Rd, D/S of Lake George Dam, Hobart **Latitude:** 41 32 7.43000 **Longitude:** -87 15 23.13000
Drainage: 124.048 **Site Number:** 13T-008

SiteID: LMG030-0008 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12844
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	100.6 %		ASTM D888-09(C)
DO	8.19 mg/L		ASTM D888-09(C)
pH (Field)	8.44 SU		EPA 150.2
Specific Conductance (Field)	722 umho/cm		SM2510B
Temperature	25.64 °C		SM2550B(2)
Turbidity	13 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

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

SiteID: LMG030-0008 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14635
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	110.3 %		ASTM D888-09(C)
DO	9 mg/L		ASTM D888-09(C)
pH (Field)	8.46 SU		EPA 150.2
Specific Conductance (Field)	693 umho/cm		SM2510B
Temperature	25.8 °C		SM2550B(2)
Turbidity (Hach)	10.6 NTU		EPA 180.1
Air Temp	6 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 #: A994690	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	20	EPA 310.2
Chloride	59 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	280 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	14 mg/L	1	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	670 mg/L	10	SM2540C
Sulfate	48 mg/L	1.3	EPA 300.0
COD	35 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.32 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.15 mg/L	0.05	EPA 365.1
TKN	1.3 mg/L	0.3	SM4500N(Org)-D
TOC	6.5 mg/L	1	SM5310C

SiteID: LMG030-0008 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12883

Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	100 %		ASTM D888-09(C)
DO	8.8 mg/L		ASTM D888-09(C)
pH (Field)	8.34 SU		EPA 150.2
Specific Conductance (Field)	688 umho/cm		SM2510B
Temperature	21.57 °C		SM2550B(2)
Turbidity	16.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12883	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	866.4 MPN/100mL	1	SM9223B

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

SiteID: LMG030-0008 Sample Date: 9/23/2013 IDEM Sample #: AB12922
 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	85.3 %		ASTM D888-09(C)
DO	7.72 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	469 umho/cm		SM2510B
Temperature	20.12 °C		SM2550B(2)
Turbidity	15.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12922	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	285.1 MPN/100mL	1	SM9223B

SiteID: LMG030-0008 Sample Date: 9/30/2013 IDEM Sample #: AB12961
 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	125.9 %		ASTM D888-09(C)
DO	11.32 mg/L		ASTM D888-09(C)
pH (Field)	8.63 SU		EPA 150.2
Specific Conductance (Field)	529 umho/cm		SM2510B
Temperature	20.48 °C		SM2550B(2)
Turbidity	9.8 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12961	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.9 MPN/100mL	1	SM9223B

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

SiteID: LMG030-0008 Sample Date: 10/7/2013 IDEM Sample #: AB13000
 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	83.9 %		ASTM D888-09(C)
DO	7.74 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	699 umho/cm		SM2510B
Temperature	19.19 °C		SM2550B(2)
Turbidity	13 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation
Lab ID #: AB13000	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	150 MPN/100mL	1	SM9223B

SiteID: LMG030-0008 Sample Date: 10/8/2013 IDEM Sample #: AB14908
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	81.7 %		ASTM D888-09(C)
DO	7.63 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	690 umho/cm		SM2510B
Temperature	18.59 °C		SM2550B(2)
Turbidity (Hach)	13.6 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 #: A997691	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	150 mg/L	10	EPA 310.2
	Chloride	60 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	260 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	13 mg/L	1	SM2540D
	Solids, Total (TS)	370 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
	Sulfate	55 mg/L	1.3	EPA 300.0
	COD	17 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	0.13 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	EPA 353.2
	Phosphorus, Total	0.1 mg/L	0.05	EPA 365.1
	TKN	0.81 mg/L	0.3	SM4500N(Org)-D
	TOC	5.8 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: LMG-05-0009 **USGS Hydrologic Unit:** 040400010506
Stream Name: Duck Creek **County:** Lake
Description: Front Street **Latitude:** 41 32 5.62143 **Longitude:** -87 15 14.33857
Drainage: 15.822 **Site Number:** 13T-009

SiteID: LMG-05-0009 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12845
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	86.9 %		ASTM D888-09(C)
DO	7.37 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	965 umho/cm		SM2510B
Temperature	23.48 °C		SM2550B(2)
Turbidity	1 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12845	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	59.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0009 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14636
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	94.3 %		ASTM D888-09(C)
DO	7.9 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	930 umho/cm		SM2510B
Temperature	24.14 °C		SM2550B(2)
Turbidity (Hach)	7.12 NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Flow	0.5259 cf/sec		TM D5389-95/D3858
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 #: A994691	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	20	EPA 310.2
Chloride	120 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	300 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	< 1 mg/L	1	SM2540D
Solids, Total (TS)	520 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	490 mg/L	10	SM2540C
Sulfate	46 mg/L	0.25	EPA 300.0
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.24 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.15 mg/L	0.05	EPA 365.1
TKN	0.58 mg/L	0.3	SM4500N(Org)-D
TOC	5.5 mg/L	4	SM5310C

SiteID: LMG-05-0009 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12884
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	85.5 %		ASTM D888-09(C)
DO	8.19 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	927 umho/cm		SM2510B
Temperature	17.33 °C		SM2550B(2)
Turbidity	1.2 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12884	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	90.8 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0009 Sample Date: 9/23/2013 IDEM Sample #: AB12923
 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	69.3 %		ASTM D888-09(C)
DO	6.91 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	722 umho/cm		SM2510B
Temperature	15.74 °C		SM2550B(2)
Turbidity	2.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12923	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	191.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0009 Sample Date: 9/30/2013 IDEM Sample #: AB12962
 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	90.4 %		ASTM D888-09(C)
DO	8.92 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	857 umho/cm		SM2510B
Temperature	15.88 °C		SM2550B(2)
Turbidity	4.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12962	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1986.3 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0009 Sample Date: 10/7/2013 IDEM Sample #: AB13001
 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	78.2 %		ASTM D888-09(C)
DO	7.84 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	782 umho/cm		SM2510B
Temperature	15.21 °C		SM2550B(2)
Turbidity	4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB13001	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	201.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0009 Sample Date: 10/8/2013 IDEM Sample #: AB14909
 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	71.6 %		ASTM D888-09(C)
DO	7.25 mg/L		ASTM D888-09(C)
pH (Field)	7.7 SU		EPA 150.2
Specific Conductance (Field)	845 umho/cm		SM2510B
Temperature	14.62 °C		SM2550B(2)
Turbidity (Hach)	4.02 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	1.552 cf/sec		TM D5389-95/D3858
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 #: A997693	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	50	EPA 310.2
Chloride	89 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	300 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	3 mg/L	1	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	47 mg/L	1.3	EPA 300.0
COD	26 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.16 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.11 mg/L	0.05	EPA 365.1
TKN	0.72 mg/L	0.3	SM4500N(Org)-D
TOC	6.8 mg/L	1	SM5310C

SiteID: LMG-05-0009 **Sample Date:** 11/5/2013 **IDEM Sample #:** AB14959
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	70.1 %		ASTM D888-09(C)
DO	8.07 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	708 umho/cm		SM2510B
Temperature	9.07 °C		SM2550B(2)
Turbidity (Hach)	7.46 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	9.1976 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AA00644	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	50	EPA 310.2
Chloride	61 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	310 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	6 mg/L	1	SM2540D
Solids, Total (TS)	440 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	57 mg/L	2.5	EPA 300.0
COD	12 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.2 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.072 mg/L	0.05	EPA 365.1
TKN	0.97 mg/L	0.3	SM4500N(Org)-D
TOC	7.4 mg/L	1	SM5310C

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

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: LMG-05-0010 **USGS Hydrologic Unit:** 040400010506
Stream Name: Tributary of Duck Creek **County:** Lake
Description: 10th Street **Latitude:** 41 31 17.70971 **Longitude:** -87 14 23.41143
Drainage: 3.091 **Site Number:** 13T-010

SiteID: LMG-05-0010 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12812
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	64.9 %		ASTM D888-09(C)
DO	5.85 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	846 umho/cm		SM2510B
Temperature	20.21 °C		SM2550B(2)
Turbidity	8.4 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12812	<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

SiteID: LMG-05-0010 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14603
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	84.9 %		ASTM D888-09(C)
DO	7.45 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	828 umho/cm		SM2510B
Temperature	21.73 °C		SM2550B(2)
Turbidity (Hach)	4.33 NTU		EPA 180.1
Air Temp	6 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 #: A994692	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	20	EPA 310.2
Chloride	96 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	300 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	2 mg/L	1	SM2540D
Solids, Total (TS)	470 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	470 mg/L	10	SM2540C
Sulfate	47 mg/L	1.3	EPA 300.0
COD	22 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.41 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.074 mg/L	0.05	EPA 365.1
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-D
TOC	3.4 mg/L	1	SM5310C

SiteID: LMG-05-0010 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12851

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	74.2 %		ASTM D888-09(C)
DO	7.29 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	578 umho/cm		SM2510B
Temperature	16.12 °C		SM2550B(2)
Turbidity	4.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12851	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1732.9 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0010 Sample Date: 9/23/2013 IDEM Sample #: AB12890
 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	78.9 %		ASTM D888-09(C)
DO	8 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	571 umho/cm		SM2510B
Temperature	14.66 °C		SM2550B(2)
Turbidity	3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12890	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	218.7 MPN/100mL	1	SM9223B

SiteID: LMG-05-0010 Sample Date: 9/30/2013 IDEM Sample #: AB12929
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	71.6 %		ASTM D888-09(C)
DO	7.3 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	641 umho/cm		SM2510B
Temperature	14.43 °C		SM2550B(2)
Turbidity	2.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12929	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	160.7 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0010 Sample Date: 10/7/2013 IDEM Sample #: AB12968
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	75.2 %		ASTM D888-09(C)
DO	7.85 mg/L		ASTM D888-09(C)
pH (Field)	7.59 SU		EPA 150.2
Specific Conductance (Field)	636 umho/cm		SM2510B
Temperature	13.41 °C		SM2550B(2)
Turbidity	2.1 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12968	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	272.3 MPN/100mL	1	SM9223B

SiteID: LMG-05-0010 Sample Date: 10/8/2013 IDEM Sample #: AB14876
 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	77 %		ASTM D888-09(C)
DO	8.09 mg/L		ASTM D888-09(C)
pH (Field)	7.73 SU		EPA 150.2
Specific Conductance (Field)	664 umho/cm		SM2510B
Temperature	12.97 °C		SM2550B(2)
Turbidity (Hach)	5.58 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 #: A997694	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	230 mg/L	50	EPA 310.2
	Chloride	53 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	270 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	2 mg/L	1	SM2540D
	Solids, Total (TS)	370 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
	Sulfate	56 mg/L	1.3	EPA 300.0
	COD	20 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.38 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.073 mg/L	0.05	EPA 365.1
	TKN	0.51 mg/L	0.3	SM4500N(Org)-D
	TOC	6.4 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	

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

SiteID: LMG-05-0032 **USGS Hydrologic Unit:** 040400010506
Stream Name: Duck Creek **County:** Porter
Description: 750 W **Latitude:** 41 30 59.19250 **Longitude:** -87 12 38.70570
Drainage: 6.517 **Site Number:** 13T-011

SiteID: LMG-05-0032 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14604
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Isolated pool

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	% Sat	10.9 %	ASTM D888-09(C)
	DO	0.96 mg/L	ASTM D888-09(C)
	pH (Field)	7.72 SU	EPA 150.2
	Specific Conductance (Field)	795 umho/cm	SM2510B
	Temperature	18.37 °C	SM2550B(2)
	Turbidity (Hach)	20.5 NTU	EPA 180.1
	Air Temp	6 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation

<u>Lab ID #:</u> A994693	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	Alkalinity (as CaCO3)	350 mg/L	EPA 310.2
	Chloride	52 mg/L	EPA 300.0
	Hardness (as CaCO3)	350 mg/L	SM2340B
	Solids, Suspended Total, (TSS)	16 mg/L	SM2540D
	Solids, Total (TS)	470 mg/L	SM2540B
	Solids, Total Dissolved (TDS)	430 mg/L	SM2540C
	Sulfate	4.2 mg/L	EPA 300.0
	COD	42 mg/L	EPA 410.4
	Nitrogen, Ammonia	2.6 mg/L	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.016 mg/L	EPA 353.2
	Phosphorus, Total	0.86 mg/L	EPA 365.1
	TKN	4.3 mg/L	SM4500N(Org)-D
	TOC	12 mg/L	SM5310C

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

SiteID: LMG-05-0032 Sample Date: 9/9/2013 IDEM Sample #: AB12813
 Water Flow Type Stagnant Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	13.7 %		ASTM D888-09(C)
DO	1.26 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	824 umho/cm		SM2510B
Temperature	19.61 °C		SM2550B(2)
Turbidity	14.2 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12813	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	2419.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0032 Sample Date: 9/16/2013 IDEM Sample #: AB12852
 Water Flow Type Stagnant Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Isolated pool

Lab ID #:	Result	Reporting Limit	Method
% Sat	18.8 %		ASTM D888-09(C)
DO	1.9 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	843 umho/cm		SM2510B
Temperature	15.04 °C		SM2550B(2)
Turbidity	18.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12852	Result	Reporting Limit	Method
E. coli	435.2 MPN/100mL	1	SM9223B
Lab ID #: AB12852a	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

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

SiteID: LMG-05-0032 **Sample Date:** 9/23/2013 **IDEM Sample #:** AB12891
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	82 %		ASTM D888-09(C)
DO	8.44 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	927 umho/cm		SM2510B
Temperature	13.92 °C		SM2550B(2)
Turbidity	16.2 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12891	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1046.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0032 **Sample Date:** 9/30/2013 **IDEM Sample #:** AB12930
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	56.9 %		ASTM D888-09(C)
DO	5.84 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	902 umho/cm		SM2510B
Temperature	14.08 °C		SM2550B(2)
Turbidity	9.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12930	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1986.3 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0032 Sample Date: 10/7/2013 IDEM Sample #: AB12969
 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	70.4 %		ASTM D888-09(C)
DO	7.37 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	929 umho/cm		SM2510B
Temperature	13.14 °C		SM2550B(2)
Turbidity	5.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12969	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0032 Sample Date: 10/8/2013 IDEM Sample #: AB14877
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	66.6 %		ASTM D888-09(C)
DO	7.09 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	965 umho/cm		SM2510B
Temperature	12.41 °C		SM2550B(2)
Turbidity (Hach)	5.02 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 #: A997695	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	310 mg/L	50	EPA 310.2
	Chloride	100 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	370 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	1 mg/L	1	SM2540D
	Solids, Total (TS)	620 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	540 mg/L	10	SM2540C
	Sulfate	72 mg/L	1.3	EPA 300.0
	COD	24 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.093 mg/L	0.05	EPA 365.1
	TKN	0.69 mg/L	0.3	SM4500N(Org)-D
	TOC	10 mg/L	2	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: LMG-05-0011 **USGS Hydrologic Unit:** 040400010507
Stream Name: Deep River **County:** Lake
Description: Arizona Street **Latitude:** 41 30 42.80903 **Longitude:** -87 17 9.53295
Drainage: 78.790 **Site Number:** 13T-012

SiteID: LMG-05-0011 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12814
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	97.5 %		ASTM D888-09(C)
DO	8.44 mg/L		ASTM D888-09(C)
pH (Field)	8.12 SU		EPA 150.2
Specific Conductance (Field)	787 umho/cm		SM2510B
Temperature	22.41 °C		SM2550B(2)
Turbidity	17 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12814	<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

SiteID: LMG-05-0011 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14605
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	101 %		ASTM D888-09(C)
DO	8.67 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	755 umho/cm		SM2510B
Temperature	22.93 °C		SM2550B(2)
Turbidity (Hach)	8.04 NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Flow	17.226 cf/sec		TM D5389-95/D3858
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 #: A994694	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	260 mg/L	50	EPA 310.2
Chloride	67 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	320 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	1	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	58 mg/L	2.5	EPA 300.0
COD	20 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.6 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.18 mg/L	0.05	EPA 365.1
TKN	0.33 mg/L	0.3	SM4500N(Org)-D
TOC	4.8 mg/L	1	SM5310C

SiteID: LMG-05-0011 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12853

Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	94.1 %		ASTM D888-09(C)
DO	9.03 mg/L		ASTM D888-09(C)
pH (Field)	8.16 SU		EPA 150.2
Specific Conductance (Field)	761 umho/cm		SM2510B
Temperature	17.24 °C		SM2550B(2)
Turbidity	21 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12853	Result	Reporting Limit	Method
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: LMG-05-0011 Sample Date: 9/23/2013 IDEM Sample #: AB12892
 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	85.6 %		ASTM D888-09(C)
DO	8.45 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	711 umho/cm		SM2510B
Temperature	15.9 °C		SM2550B(2)
Turbidity	9.8 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12892	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	816.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0011 Sample Date: 9/30/2013 IDEM Sample #: AB12931
 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	95.6 %		ASTM D888-09(C)
DO	9.3 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	766 umho/cm		SM2510B
Temperature	16.55 °C		SM2550B(2)
Turbidity	7 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12931	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	686.7 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0011 Sample Date: 10/7/2013 IDEM Sample #: AB12970
 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	78.1 %		ASTM D888-09(C)
DO	7.57 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	574 umho/cm		SM2510B
Temperature	16.8 °C		SM2550B(2)
Turbidity	18 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12970	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0011 Sample Date: 10/8/2013 IDEM Sample #: AB14878
 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	80.4 %		ASTM D888-09(C)
DO	8.21 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	644 umho/cm		SM2510B
Temperature	14.37 °C		SM2550B(2)
Turbidity (Hach)	7.13 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	48.018 cf/sec		TM D5389-95/D3858
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 #: A997696	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	10	EPA 310.2
Chloride	58 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	220 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	6 mg/L	1	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	45 mg/L	1.3	EPA 300.0
COD	20 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1 mg/L	0.05	EPA 353.2
Phosphorus, Total	0.17 mg/L	0.05	EPA 365.1
TKN	0.47 mg/L	0.3	SM4500N(Org)-D
TOC	8 mg/L	1	SM5310C

SiteID: LMG-05-0011 **Sample Date:** 11/4/2013 **IDEM Sample #:** AB14960
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	81 %		ASTM D888-09(C)
DO	9.31 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	709 umho/cm		SM2510B
Temperature	9.19 °C		SM2550B(2)
Turbidity (Hach)	10.5 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	69.246 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #: AA00646	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	10	EPA 310.2
Chloride	61 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	260 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	5 mg/L	1	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	72 mg/L	2.5	EPA 300.0
COD	20 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.3 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.12 mg/L	0.05	EPA 365.1
TKN	0.91 mg/L	0.3	SM4500N(Org)-D
TOC	10 mg/L	1	SM5310C

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

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: LMG-05-0033 **USGS Hydrologic Unit:** 040400010507
Stream Name: Sprout Ditch **County:** Lake
Description: 70th Avenue **Latitude:** 41 29 34.65281 **Longitude:** -87 17 15.43279
Drainage: 3.628 **Site Number:** 13T-013

SiteID: LMG-05-0033 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12815
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	60.2 %		ASTM D888-09(C)
DO	5.39 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	1156 umho/cm		SM2510B
Temperature	20.62 °C		SM2550B(2)
Turbidity	2.9 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: LMG-05-0033 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB14606
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	63.3 %		ASTM D888-09(C)
DO	5.61 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	1121 umho/cm		SM2510B
Temperature	21.08 °C		SM2550B(2)
Turbidity (Hach)	3.47 NTU		EPA 180.1
Air Temp	6 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 #: A994696	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	20	EPA 310.2
Chloride	210 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	260 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	1 mg/L	1	SM2540D
Solids, Total (TS)	580 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	600 mg/L	10	SM2540C
Sulfate	41 mg/L	0.25	EPA 300.0
COD	21 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.26 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.067 mg/L	0.05	EPA 365.1
TKN	0.58 mg/L	0.3	SM4500N(Org)-D
TOC	5.8 mg/L	4	SM5310C

SiteID: LMG-05-0033 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12854
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	58.6 %		ASTM D888-09(C)
DO	5.85 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	1041 umho/cm		SM2510B
Temperature	15.39 °C		SM2550B(2)
Turbidity	2.8 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12854	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	160.7 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0033 Sample Date: 9/23/2013 IDEM Sample #: AB12893
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	86.1 %		ASTM D888-09(C)
DO	8.68 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	899 umho/cm		SM2510B
Temperature	14.88 °C		SM2550B(2)
Turbidity	14.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12893	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0033 Sample Date: 9/30/2013 IDEM Sample #: AB12932
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	81.3 %		ASTM D888-09(C)
DO	8.16 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	947 umho/cm		SM2510B
Temperature	15.09 °C		SM2550B(2)
Turbidity	6.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12932	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	866.4 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0033 Sample Date: 10/7/2013 IDEM Sample #: AB12971
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	86.7 %		ASTM D888-09(C)
DO	8.72 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	703 umho/cm		SM2510B
Temperature	15.03 °C		SM2550B(2)
Turbidity	11.2 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12971	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1119.9 MPN/100mL	1	SM9223B

SiteID: LMG-05-0033 Sample Date: 10/8/2013 IDEM Sample #: AB14879
 Water Flow Type Glide Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	84.5 %		ASTM D888-09(C)
DO	8.65 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	817 umho/cm		SM2510B
Temperature	14.17 °C		SM2550B(2)
Turbidity (Hach)	10.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: A997697	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	120 mg/L	10	EPA 310.2
	Chloride	150 mg/L	2.5	EPA 300.0
	Hardness (as CaCO3)	160 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	6 mg/L	1	SM2540D
	Solids, Total (TS)	480 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
	Sulfate	42 mg/L	1.3	EPA 300.0
	COD	20 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.054 mg/L	0.05	EPA 365.1
	TKN	0.49 mg/L	0.3	SM4500N(Org)-D
	TOC	11 mg/L	10	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: LMG-05-0012 **USGS Hydrologic Unit:** 040400010507
Stream Name: Deep River **County:** Lake
Description: Joliet Road **Latitude:** 41 28 34.10215 **Longitude:** -87 13 12.54660
Drainage: 66.707 **Site Number:** 13T-014

SiteID: LMG-05-0012 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12816
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	114.7 %		ASTM D888-09(C)
DO	9.75 mg/L		ASTM D888-09(C)
pH (Field)	8.26 SU		EPA 150.2
Specific Conductance (Field)	766 umho/cm		SM2510B
Temperature	23.35 °C		SM2550B(2)
Turbidity	2.1 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12816	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	148.3 MPN/100mL	1	SM9223B

SiteID: LMG-05-0012 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14607
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	73.1 %		ASTM D888-09(C)
DO	6.37 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	740 umho/cm		SM2510B
Temperature	22.06 °C		SM2550B(2)
Turbidity (Hach)	3.43 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	8.7728 cf/sec		TM D5389-95/D3858
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 #: A994697	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	200 mg/L	10	EPA 310.2
Chloride	55 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	310 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	3 mg/L	1	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	49 mg/L	1.3	EPA 300.0
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	6.9 mg/L	0.2	EPA 353.2
Phosphorus, Total	0.27 mg/L	0.05	EPA 365.1
TKN	0.66 mg/L	0.3	SM4500N(Org)-D
TOC	4.5 mg/L	1	SM5310C

SiteID: LMG-05-0012 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12855

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	106.7 %		ASTM D888-09(C)
DO	10.23 mg/L		ASTM D888-09(C)
pH (Field)	8.24 SU		EPA 150.2
Specific Conductance (Field)	756 umho/cm		SM2510B
Temperature	17.26 °C		SM2550B(2)
Turbidity	1.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12855	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	152.9 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0012 Sample Date: 9/23/2013 IDEM Sample #: AB12894
 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	98.4 %		ASTM D888-09(C)
DO	9.79 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	710 umho/cm		SM2510B
Temperature	15.51 °C		SM2550B(2)
Turbidity	3.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12894	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	190.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0012 Sample Date: 9/30/2013 IDEM Sample #: AB12933
 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	106.3 %		ASTM D888-09(C)
DO	10.48 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	770 umho/cm		SM2510B
Temperature	15.97 °C		SM2550B(2)
Turbidity	1.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12933	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	116.9 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0012 Sample Date: 10/7/2013 IDEM Sample #: AB12972
 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	92 %		ASTM D888-09(C)
DO	9.08 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	620 umho/cm		SM2510B
Temperature	15.91 °C		SM2550B(2)
Turbidity	7.5 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12972	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0012 Sample Date: 10/9/2013 IDEM Sample #: AB14880
 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	85.3 %		ASTM D888-09(C)
DO	8.89 mg/L		ASTM D888-09(C)
pH (Field)	8 SU		EPA 150.2
Specific Conductance (Field)	715 umho/cm		SM2510B
Temperature	13.32 °C		SM2550B(2)
Turbidity (Hach)	5.25 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	21.1991 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: A997698	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	220 mg/L	20	EPA 310.2
Chloride	56 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	270 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	1	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	53 mg/L	1.3	EPA 300.0
COD	17 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.2 mg/L	0.05	EPA 365.1
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-D
TOC	8.2 mg/L	5	SM5310C

SiteID: LMG-05-0012 **Sample Date:** 11/4/2013 **IDEM Sample #:** AB14961
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	94.4 %		ASTM D888-09(C)
DO	10.69 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	728 umho/cm		SM2510B
Temperature	9.73 °C		SM2550B(2)
Turbidity (Hach)	10.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	52.533 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AA00647	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	10	EPA 310.2
Chloride	64 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	280 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	1	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	81 mg/L	2.5	EPA 300.0
COD	26 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.5 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.12 mg/L	0.05	EPA 365.1
TKN	1.1 mg/L	0.3	SM4500N(Org)-D
TOC	10 mg/L	1	SM5310C

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

SiteID: LMG-05-0012 **Sample Date:** 12/9/2013 **IDEM Sample #:** AB15265
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	100.2 %		ASTM D888-09(C)
DO	14.66 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	883 umho/cm		SM2510B
Temperature	-0.13 °C		SM2550B(2)
Turbidity (Hach)	6.44 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Flow	20.06 cf/sec		TM D5389-95/D3858
Sky Conditions	9 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	220 mg/L	50	EPA 310.2
Chloride	69 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	370 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	< 1 mg/L	1	SM2540D
Solids, Total (TS)	510 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	490 mg/L	10	SM2540C
Sulfate	89 mg/L	2.5	EPA 300.0
COD	13 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	5 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.22 mg/L	0.05	EPA 365.1
TKN	0.93 mg/L	0.3	SM4500N(Org)-D
TOC	6.8 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: LMG-05-0013 **USGS Hydrologic Unit:** 040400010504
Stream Name: Tributary of Deep River **County:** Porter
Description: 750 W **Latitude:** 41 27 52.24286 **Longitude:** -87 12 36.59618
Drainage: 2.912 **Site Number:** 13T-015

SiteID: LMG-05-0013 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12817
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	92.4 %		ASTM D888-09(C)
DO	8.43 mg/L		ASTM D888-09(C)
pH (Field)	8.13 SU		EPA 150.2
Specific Conductance (Field)	744 umho/cm		SM2510B
Temperature	19.72 °C		SM2550B(2)
Turbidity	6.8 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0013 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14608
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	86.4 %		ASTM D888-09(C)
DO	8.18 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	716 umho/cm		SM2510B
Temperature	17.9 °C		SM2550B(2)
Turbidity (Hach)	11.9 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 #: A994698	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	350 mg/L	20	EPA 310.2
Chloride	9.9 mg/L	0.25	EPA 300.0
Hardness (as CaCO3)	410 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	9 mg/L	1	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
Sulfate	65 mg/L	1.3	EPA 300.0
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.24 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	0.46 mg/L	0.3	SM4500N(Org)-D
TOC	2.6 mg/L	1	SM5310C

SiteID: LMG-05-0013 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12856

Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	91.1 %		ASTM D888-09(C)
DO	9.1 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	743 umho/cm		SM2510B
Temperature	15.37 °C		SM2550B(2)
Turbidity	7.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12856	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	727 MPN/100mL	1	SM9223B

**Indiana Department of Environmental Management
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SiteID: LMG-05-0013 Sample Date: 9/23/2013 IDEM Sample #: AB12895
 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	90.2 %		ASTM D888-09(C)
DO	9.35 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	727 umho/cm		SM2510B
Temperature	13.61 °C		SM2550B(2)
Turbidity	9.1 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12895	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0013 Sample Date: 9/30/2013 IDEM Sample #: AB12934
 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	90 %		ASTM D888-09(C)
DO	9.24 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	754 umho/cm		SM2510B
Temperature	14.07 °C		SM2550B(2)
Turbidity	4.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12934	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0013 Sample Date: 10/7/2013 IDEM Sample #: AB12973
 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	86.9 %		ASTM D888-09(C)
DO	9.18 mg/L		ASTM D888-09(C)
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	768 umho/cm		SM2510B
Temperature	12.82 °C		SM2550B(2)
Turbidity	5.6 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12973	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0013 Sample Date: 10/9/2013 IDEM Sample #: AB14881
 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	86.5 %		ASTM D888-09(C)
DO	9.4 mg/L		ASTM D888-09(C)
pH (Field)	8.07 SU		EPA 150.2
Specific Conductance (Field)	762 umho/cm		SM2510B
Temperature	11.52 °C		SM2550B(2)
Turbidity (Hach)	11.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: A997699	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	350 mg/L	50	EPA 310.2
Chloride	12 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	410 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	11 mg/L	1	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	76 mg/L	1.3	EPA 300.0
COD	5 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.16 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	0.47 mg/L	0.3	SM4500N(Org)-D
TOC	4.1 mg/L	2	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: LMG-05-0034 **USGS Hydrologic Unit:** 040400010504
Stream Name: Tributary of Deep River **County:** Lake
Description: 89th Avenue **Latitude:** 41 27 22.78824 **Longitude:** -87 13 45.50682
Drainage: 2.364 **Site Number:** 13T-016

SiteID: LMG-05-0034 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12818
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	93.5 %		ASTM D888-09(C)
DO	8.15 mg/L		ASTM D888-09(C)
pH (Field)	8.17 SU		EPA 150.2
Specific Conductance (Field)	755 umho/cm		SM2510B
Temperature	22.09 °C		SM2550B(2)
Turbidity	10.8 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12818	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	816.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0034 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14609
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	86.5 %		ASTM D888-09(C)
DO	8.23 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	763 umho/cm		SM2510B
Temperature	17.68 °C		SM2550B(2)
Turbidity (Hach)	16.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: A994699	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	20	EPA 310.2
Chloride	46 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	360 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	19 mg/L	1	SM2540D
Solids, Total (TS)	470 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
Sulfate	51 mg/L	1.3	EPA 300.0
COD	15 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.32 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.073 mg/L	0.05	EPA 365.1
TKN	0.46 mg/L	0.3	SM4500N(Org)-D
TOC	2.3 mg/L	1	SM5310C

SiteID: LMG-05-0034 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12857

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	92.5 %		ASTM D888-09(C)
DO	8.89 mg/L		ASTM D888-09(C)
pH (Field)	8.2 SU		EPA 150.2
Specific Conductance (Field)	753 umho/cm		SM2510B
Temperature	17.17 °C		SM2550B(2)
Turbidity	12.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12857	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	980.4 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0034 Sample Date: 9/23/2013 IDEM Sample #: AB12896
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	91.5 %		ASTM D888-09(C)
DO	9.07 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	756 umho/cm		SM2510B
Temperature	15.71 °C		SM2550B(2)
Turbidity	20.6 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12896	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0034 Sample Date: 9/30/2013 IDEM Sample #: AB12935
 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	92.4 %		ASTM D888-09(C)
DO	9.08 mg/L		ASTM D888-09(C)
pH (Field)	8.06 SU		EPA 150.2
Specific Conductance (Field)	762 umho/cm		SM2510B
Temperature	16.08 °C		SM2550B(2)
Turbidity	18.2 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12935	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0034 Sample Date: 10/7/2013 IDEM Sample #: AB12974
 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 %		ASTM D888-09(C)
DO	9.27 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	751 umho/cm		SM2510B
Temperature	14.46 °C		SM2550B(2)
Turbidity	25.6 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12974	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: LMG-05-0034 Sample Date: 10/9/2013 IDEM Sample #: AB14882
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	89.3 %		ASTM D888-09(C)
DO	9.77 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	812 umho/cm		SM2510B
Temperature	11.29 °C		SM2550B(2)
Turbidity (Hach)	18.7 NTU		EPA 180.1
Air Temp	3 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 #: A997700	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	320 mg/L	50	EPA 310.2
	Chloride	47 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	370 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	24 mg/L	1	SM2540D
	Solids, Total (TS)	500 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
	Sulfate	56 mg/L	1.3	EPA 300.0
	COD	18 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.26 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.074 mg/L	0.05	EPA 365.1
	TKN	0.43 mg/L	0.3	SM4500N(Org)-D
	TOC	3.9 mg/L	2	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: LMG-05-0014 **USGS Hydrologic Unit:** 040400010504
Stream Name: Tributary of Deep River **County:** Lake
Description: 93rd Avenue **Latitude:** 41 26 56.94874 **Longitude:** -87 14 50.29153
Drainage: 3.505 **Site Number:** 13T-017

SiteID: LMG-05-0014 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12819
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	89.3 %		ASTM D888-09(C)
DO	7.85 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	725 umho/cm		SM2510B
Temperature	21.63 °C		SM2550B(2)
Turbidity	6.4 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12819	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0014 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14610
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	69.5 %		ASTM D888-09(C)
DO	6.14 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	702 umho/cm		SM2510B
Temperature	21.21 °C		SM2550B(2)
Turbidity (Hach)	8.38 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 #: A994700	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	270 mg/L	20	EPA 310.2
Chloride	41 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	330 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	1	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	59 mg/L	1.3	EPA 300.0
COD	22 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.08 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.052 mg/L	0.05	EPA 365.1
TKN	0.39 mg/L	0.3	SM4500N(Org)-D
TOC	3.2 mg/L	1	SM5310C

SiteID: LMG-05-0014 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12858

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	92.4 %		ASTM D888-09(C)
DO	8.98 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	725 umho/cm		SM2510B
Temperature	16.64 °C		SM2550B(2)
Turbidity	7.6 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12858	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0014 Sample Date: 9/23/2013 IDEM Sample #: AB12897
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	91.2 %		ASTM D888-09(C)
DO	9.38 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	689 umho/cm		SM2510B
Temperature	13.97 °C		SM2550B(2)
Turbidity	7.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12897	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	307.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0014 Sample Date: 9/30/2013 IDEM Sample #: AB12936
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	91.9 %		ASTM D888-09(C)
DO	9.46 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	699 umho/cm		SM2510B
Temperature	13.95 °C		SM2550B(2)
Turbidity	2.2 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12936	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0014 Sample Date: 10/7/2013 IDEM Sample #: AB12975
 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	93.9 %		ASTM D888-09(C)
DO	9.51 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	642 umho/cm		SM2510B
Temperature	14.73 °C		SM2550B(2)
Turbidity	5.1 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12975	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	275.5 MPN/100mL	1	SM9223B

SiteID: LMG-05-0014 Sample Date: 10/9/2013 IDEM Sample #: AB14883
 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	81.2 %		ASTM D888-09(C)
DO	8.62 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	696 umho/cm		SM2510B
Temperature	12.5 °C		SM2550B(2)
Turbidity (Hach)	8.79 NTU		EPA 180.1
Air Temp	3 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 #: A997701	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	240 mg/L	50	EPA 310.2
	Chloride	40 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	310 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	5 mg/L	1	SM2540D
	Solids, Total (TS)	340 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	60 mg/L	1.3	EPA 300.0
	COD	9 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.082 mg/L	0.01	EPA 353.2
	Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
	TKN	0.33 mg/L	0.3	SM4500N(Org)-D
	TOC	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	

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

SiteID: LMG-05-0015 **USGS Hydrologic Unit:** 040400010502
Stream Name: Deep River **County:** Lake
Description: Clay Street **Latitude:** 41 26 49.37521 **Longitude:** -87 16 39.42753
Drainage: 44.481 **Site Number:** 13T-018

SiteID: LMG-05-0015 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12820
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	84.1 %		ASTM D888-09(C)
DO	7.21 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	824 umho/cm		SM2510B
Temperature	22.97 °C		SM2550B(2)
Turbidity	4.6 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12820	<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

SiteID: LMG-05-0015 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14611
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	64.1 %		ASTM D888-09(C)
DO	5.48 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	772 umho/cm		SM2510B
Temperature	23.07 °C		SM2550B(2)
Turbidity (Hach)	7.37 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	6.4683 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

Lab ID #: A994701	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	10	EPA 310.2
Chloride	93 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	240 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	1	SM2540D
Solids, Total (TS)	440 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	53 mg/L	2.5	EPA 300.0
COD	6.8 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	15 mg/L	0.2	EPA 353.2
Phosphorus, Total	0.64 mg/L	0.05	EPA 365.1
TKN	0.48 mg/L	0.3	SM4500N(Org)-D
TOC	5.5 mg/L	2	SM5310C

SiteID: LMG-05-0015 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12859

Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	83 %		ASTM D888-09(C)
DO	8.04 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	800 umho/cm		SM2510B
Temperature	16.77 °C		SM2550B(2)
Turbidity	4.7 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12859	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1046.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0015 Sample Date: 9/23/2013 IDEM Sample #: AB12898
 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	79.3 %		ASTM D888-09(C)
DO	7.93 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	762 umho/cm		SM2510B
Temperature	15.27 °C		SM2550B(2)
Turbidity	3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12898	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0015 Sample Date: 9/30/2013 IDEM Sample #: AB12937
 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	72.6 %		ASTM D888-09(C)
DO	7.15 mg/L		ASTM D888-09(C)
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	698 umho/cm		SM2510B
Temperature	16.07 °C		SM2550B(2)
Turbidity	7.6 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12937	Result	Reporting Limit	Method
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: LMG-05-0015 Sample Date: 10/7/2013 IDEM Sample #: AB12976
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	75 %		ASTM D888-09(C)
DO	7.46 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	685 umho/cm		SM2510B
Temperature	15.56 °C		SM2550B(2)
Turbidity	4.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12976	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0015 Sample Date: 10/9/2013 IDEM Sample #: AB14884
 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	71.9 %		ASTM D888-09(C)
DO	7.33 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	794 umho/cm		SM2510B
Temperature	14.31 °C		SM2550B(2)
Turbidity (Hach)	9.24 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	10.6436 cf/sec		TM D5389-95/D3858
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 #: A997702	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	10	EPA 310.2
Chloride	81 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	260 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	1	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	52 mg/L	1.3	EPA 300.0
COD	33 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	6.1 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.34 mg/L	0.05	EPA 365.1
TKN	0.34 mg/L	0.3	SM4500N(Org)-D
TOC	9.2 mg/L	5	SM5310C

SiteID: LMG-05-0015 **Sample Date:** 11/4/2013 **IDEM Sample #:** AB14962

Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	78.5 %		ASTM D888-09(C)
DO	8.92 mg/L		ASTM D888-09(C)
pH (Field)	7.55 SU		EPA 150.2
Specific Conductance (Field)	784 umho/cm		SM2510B
Temperature	9.64 °C		SM2550B(2)
Turbidity (Hach)	11.6 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	32.9213 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #: AA00648	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	10	EPA 310.2
Chloride	76 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	290 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	1	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	92 mg/L	2.5	EPA 300.0
COD	34 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.8 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.14 mg/L	0.05	EPA 365.1
TKN	1.7 mg/L	0.3	SM4500N(Org)-D
TOC	12 mg/L	1	SM5310C

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

SiteID: LMG-05-0015 **Sample Date:** 12/9/2013 **IDEM Sample #:** AB15266
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	79.3 %		ASTM D888-09(C)
DO	11.34 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	785 umho/cm		SM2510B
Temperature	0.76 °C		SM2550B(2)
Turbidity (Hach)	9.99 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Flow	10.5956 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AA04581	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	190 mg/L	10	EPA 310.2
Chloride	93 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	340 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	1	SM2540D
Solids, Total (TS)	670 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	540 mg/L	10	SM2540C
Sulfate	99 mg/L	2.5	EPA 300.0
COD	28 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.18 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	8.1 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.57 mg/L	0.05	EPA 365.1
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-D
TOC	9.6 mg/L	5	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: LMG-05-0035 **USGS Hydrologic Unit:** 040400010504
Stream Name: Deer Creek **County:** Lake
Description: 97th Avenue **Latitude:** 41 26 30.93013 **Longitude:** -87 16 12.66699
Drainage: 5.883 **Site Number:** 13T-019

SiteID: LMG-05-0035 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12821
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	66.6 %		ASTM D888-09(C)
DO	5.56 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	832 umho/cm		SM2510B
Temperature	24.31 °C		SM2550B(2)
Turbidity	5.4 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: LMG-05-0035 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14612
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	50.8 %		ASTM D888-09(C)
DO	4.31 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	840 umho/cm		SM2510B
Temperature	23.21 °C		SM2550B(2)
Turbidity (Hach)	24.8 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: A994702	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	20	EPA 310.2
Chloride	91 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	310 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	26 mg/L	1	SM2540D
Solids, Total (TS)	500 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	500 mg/L	10	SM2540C
Sulfate	46 mg/L	0.25	EPA 300.0
COD	43 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.4 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.25 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.44 mg/L	0.05	EPA 365.1
TKN	1.6 mg/L	0.3	SM4500N(Org)-D
TOC	11 mg/L	5	SM5310C

SiteID: LMG-05-0035 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12860

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	69.2 %		ASTM D888-09(C)
DO	6.7 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	507 umho/cm		SM2510B
Temperature	16.82 °C		SM2550B(2)
Turbidity	4.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12860	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	686.7 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0035 Sample Date: 9/23/2013 IDEM Sample #: AB12899
 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	66.1 %		ASTM D888-09(C)
DO	6.53 mg/L		ASTM D888-09(C)
pH (Field)	7.46 SU		EPA 150.2
Specific Conductance (Field)	706 umho/cm		SM2510B
Temperature	15.91 °C		SM2550B(2)
Turbidity	8.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12899	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	178.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0035 Sample Date: 9/30/2013 IDEM Sample #: AB12938
 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	76.6 %		ASTM D888-09(C)
DO	7.52 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	796 umho/cm		SM2510B
Temperature	16.16 °C		SM2550B(2)
Turbidity	3.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12938	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	228.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0035 Sample Date: 10/7/2013 IDEM Sample #: AB12977
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	64.6 %		ASTM D888-09(C)
DO	6.44 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	723 umho/cm		SM2510B
Temperature	15.41 °C		SM2550B(2)
Turbidity	6.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12977	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0035 Sample Date: 10/9/2013 IDEM Sample #: AB14885
 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	58.7 %		ASTM D888-09(C)
DO	6.17 mg/L		ASTM D888-09(C)
pH (Field)	7.57 SU		EPA 150.2
Specific Conductance (Field)	718 umho/cm		SM2510B
Temperature	12.94 °C		SM2550B(2)
Turbidity (Hach)	7.75 NTU		EPA 180.1
Air Temp	3 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 #: A997703	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	190 mg/L	10	EPA 310.2
	Chloride	68 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	260 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	7 mg/L	1	SM2540D
	Solids, Total (TS)	380 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
	Sulfate	48 mg/L	1.3	EPA 300.0
	COD	28 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.24 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.15 mg/L	0.05	EPA 365.1
	TKN	0.81 mg/L	0.3	SM4500N(Org)-D
	TOC	9.6 mg/L	2	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: LMG-05-0016 **USGS Hydrologic Unit:** 040400010502
Stream Name: Niles Ditch **County:** Lake
Description: Colorado Street **Latitude:** 41 25 25.12623 **Longitude:** -87 17 48.02873
Drainage: 10.029 **Site Number:** 13T-020

SiteID: LMG-05-0016 **Sample Date:** 9/9/2013 **IDEM Sample #:** AB12823
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Dam upstream of site

Lab ID #:	Result	Reporting Limit	Method
% Sat	10.3 %		ASTM D888-09(C)
DO	0.95 mg/L		ASTM D888-09(C)
pH (Field)	7.27 SU		EPA 150.2
Specific Conductance (Field)	983 umho/cm		SM2510B
Temperature	19.6 °C		SM2550B(2)
Turbidity	6.1 NTU		SM2130B Mod
Air Temp	6 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: LMG-05-0016 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14614
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Completely choked with duckweed. White fungus/algae down stream of beaver dam.

Lab ID #:	Result	Reporting Limit	Method
% Sat	6.5 %		ASTM D888-09(C)
DO	0.55 mg/L		ASTM D888-09(C)
pH (Field)	7.23 SU		EPA 150.2
Specific Conductance (Field)	892 umho/cm		SM2510B
Temperature	20.16 °C		SM2550B(2)
Turbidity (Hach)	7.26 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 #: A994703	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	380 mg/L	20	EPA 310.2
Chloride	55 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	440 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	13 mg/L	1	SM2540D
Solids, Total (TS)	580 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	550 mg/L	10	SM2540C
Sulfate	58 mg/L	1.3	EPA 300.0
COD	38 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.49 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.014 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.42 mg/L	0.05	EPA 365.1
TKN	2.3 mg/L	0.3	SM4500N(Org)-D
TOC	9.5 mg/L	1	SM5310C

SiteID: LMG-05-0016 **Sample Date:** 9/16/2013 **IDEM Sample #:** AB12862
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	13 %		ASTM D888-09(C)
DO	1.31 mg/L		ASTM D888-09(C)
pH (Field)	7.35 SU		EPA 150.2
Specific Conductance (Field)	1012 umho/cm		SM2510B
Temperature	15.41 °C		SM2550B(2)
Turbidity	13.1 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12862	Result	Reporting Limit	Method
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: LMG-05-0016 Sample Date: 9/23/2013 IDEM Sample #: AB12901
 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	19.9 %		ASTM D888-09(C)
DO	1.97 mg/L		ASTM D888-09(C)
pH (Field)	7.29 SU		EPA 150.2
Specific Conductance (Field)	939 umho/cm		SM2510B
Temperature	15.95 °C		SM2550B(2)
Turbidity	9.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12901	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	307.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0016 Sample Date: 9/30/2013 IDEM Sample #: AB12940
 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	24.6 %		ASTM D888-09(C)
DO	2.46 mg/L		ASTM D888-09(C)
pH (Field)	7.26 SU		EPA 150.2
Specific Conductance (Field)	962 umho/cm		SM2510B
Temperature	15.24 °C		SM2550B(2)
Turbidity	9.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12940	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	139.6 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0016 Sample Date: 10/7/2013 IDEM Sample #: AB12979
 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	24.3 %		ASTM D888-09(C)
DO	2.43 mg/L		ASTM D888-09(C)
pH (Field)	7.29 SU		EPA 150.2
Specific Conductance (Field)	967 umho/cm		SM2510B
Temperature	15.36 °C		SM2550B(2)
Turbidity	8 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12979	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1553.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0016 Sample Date: 10/9/2013 IDEM Sample #: AB14887
 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	16.7 %		ASTM D888-09(C)
DO	1.75 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	1010 umho/cm		SM2510B
Temperature	12.98 °C		SM2550B(2)
Turbidity (Hach)	7.42 NTU		EPA 180.1
Air Temp	3 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 #: A997704	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	280 mg/L	50	EPA 310.2
	Chloride	84 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	360 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	4 mg/L	1	SM2540D
	Solids, Total (TS)	600 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	590 mg/L	10	SM2540C
	Sulfate	110 mg/L	1.3	EPA 300.0
	COD	42 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	0.38 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.25 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.25 mg/L	0.05	EPA 365.1
	TKN	1.4 mg/L	0.3	SM4500N(Org)-D
	TOC	17 mg/L	5	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: LMG-05-0017 **USGS Hydrologic Unit:** 040400010502
Stream Name: Niles Ditch **County:** Lake
Description: 121st Avenue **Latitude:** 41 23 53.86221 **Longitude:** -87 18 6.33929
Drainage: 7.238 **Site Number:** 13T-021

SiteID: LMG-05-0017 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14615
Water Flow Type Pool **Water Appearance** Black **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	2.7 %	ASTM D888-09(C)
	DO	0.24 mg/L	ASTM D888-09(C)
	pH (Field)	7.16 SU	EPA 150.2
	Specific Conductance (Field)	839 umho/cm	SM2510B
	Temperature	22.47 °C	SM2550B(2)
	Turbidity (Hach)	16.3 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> A994704	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
	Alkalinity (as CaCO3)	380 mg/L	EPA 310.2
	Chloride	23 mg/L	EPA 300.0
	Hardness (as CaCO3)	420 mg/L	SM2340B
	Solids, Suspended Total, (TSS)	280 mg/L	SM2540D
	Solids, Total (TS)	720 mg/L	SM2540B
	Solids, Total Dissolved (TDS)	470 mg/L	SM2540C
	Sulfate	42 mg/L	EPA 300.0
	COD	76 mg/L	EPA 410.4
	Nitrogen, Ammonia	1.5 mg/L	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.014 mg/L	EPA 353.2
	Phosphorus, Total	1.3 mg/L	EPA 365.1
	TKN	4.9 mg/L	SM4500N(Org)-D
	TOC	11 mg/L	SM5310C

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

SiteID: LMG-05-0017 Sample Date: 9/10/2013 IDEM Sample #: AB12824
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	19.3 %		ASTM D888-09(C)
DO	1.55 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	824 umho/cm		SM2510B
Temperature	26.71 °C		SM2550B(2)
Turbidity	9.8 NTU		SM2130B Mod
Air Temp	6 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12824	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: LMG-05-0017 Sample Date: 9/17/2013 IDEM Sample #: AB12863
 Water Flow Type Stagnant Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	31.2 %		ASTM D888-09(C)
DO	3.25 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	731 umho/cm		SM2510B
Temperature	13.48 °C		SM2550B(2)
Turbidity	8.2 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12863	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	122.3 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0017 Sample Date: 9/24/2013 IDEM Sample #: AB12902
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	34.3 %		ASTM D888-09(C)
DO	3.5 mg/L		ASTM D888-09(C)
pH (Field)	7.49 SU		EPA 150.2
Specific Conductance (Field)	880 umho/cm		SM2510B
Temperature	14.33 °C		SM2550B(2)
Turbidity	7.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12902	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	87.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0017 Sample Date: 10/1/2013 IDEM Sample #: AB12941
 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	27.2 %		ASTM D888-09(C)
DO	2.7 mg/L		ASTM D888-09(C)
pH (Field)	7.39 SU		EPA 150.2
Specific Conductance (Field)	933 umho/cm		SM2510B
Temperature	16.5 °C		SM2550B(2)
Turbidity	11.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12941	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0017 Sample Date: 10/8/2013 IDEM Sample #: AB12980
 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	16.3 %		ASTM D888-09(C)
DO	1.72 mg/L		ASTM D888-09(C)
pH (Field)	7.2 SU		EPA 150.2
Specific Conductance (Field)	1000 umho/cm		SM2510B
Temperature	12.8 °C		SM2550B(2)
Turbidity	10.2 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12980	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	228.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0017 Sample Date: 10/9/2013 IDEM Sample #: AB14888
 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	18.7 %		ASTM D888-09(C)
DO	1.96 mg/L		ASTM D888-09(C)
pH (Field)	7.37 SU		EPA 150.2
Specific Conductance (Field)	999 umho/cm		SM2510B
Temperature	12.42 °C		SM2550B(2)
Turbidity (Hach)	8.76 NTU		EPA 180.1
Air Temp	3 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 #: A997705	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	300 mg/L	50	EPA 310.2
	Chloride	88 mg/L	1.3	EPA 300.0
	Hardness (as CaCO3)	380 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	5 mg/L	1	SM2540D
	Solids, Total (TS)	590 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	570 mg/L	10	SM2540C
	Sulfate	100 mg/L	1.3	EPA 300.0
	COD	36 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	0.36 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	0.24 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.28 mg/L	0.05	EPA 365.1
	TKN	1.4 mg/L	0.3	SM4500N(Org)-D
	TOC	16 mg/L	5	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: LMG-05-0036 **USGS Hydrologic Unit:** 040400010502
Stream Name: Smith Ditch **County:** Lake
Description: 113th Avenue **Latitude:** 41 24 46.14435 **Longitude:** -87 19 58.51046
Drainage: 2.962 **Site Number:** 13T-022

SiteID: LMG-05-0036 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14616
Water Flow Type Stagnant **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	48.1 %	ASTM D888-09(C)
	% Sat	42.7 %	ASTM D888-09(C)
	DO	3.91 mg/L	ASTM D888-09(C)
	DO	3.45 mg/L	ASTM D888-09(C)
	pH (Field)	7.74 SU	EPA 150.2
	pH (Field)	7.59 SU	EPA 150.2
	Specific Conductance (Field)	1026 umho/cm	SM2510B
	Specific Conductance (Field)	988 umho/cm	SM2510B
	Temperature	26.11 °C	SM2550B(2)
	Temperature	25.58 °C	SM2550B(2)
	Turbidity	39.1 NTU	SM2130B Mod
	Turbidity (Hach)	28.7 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Air Temp	5 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	1 Lookup	Observation
	Wind Strength	1 Lookup	Observation

<u>Lab ID #:</u> A994705	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>	
	Alkalinity (as CaCO3)	220 mg/L	50	EPA 310.2
	Chloride	150 mg/L	2.5	EPA 300.0
	Hardness (as CaCO3)	310 mg/L	1	SM2340B
	Solids, Suspended Total, (TSS)	18 mg/L	1	SM2540D
	Solids, Total (TS)	620 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	560 mg/L	10	SM2540C
	Sulfate	50 mg/L	1.3	EPA 300.0
	COD	31 mg/L	10	EPA 410.4
	Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	< 0.01 mg/L	0.01	EPA 353.2
	Phosphorus, Total	0.11 mg/L	0.05	EPA 365.1
	TKN	0.35 mg/L	0.3	SM4500N(Org)-D
	TOC	11 mg/L	5	SM5310C

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

Lab ID #:	Result	Reporting Limit	Method
AB12825			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1553.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0036 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12864
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	71.4 %		ASTM D888-09(C)
DO	7.11 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	1075 umho/cm		SM2510B
Temperature	15.47 °C		SM2550B(2)
Turbidity	18.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
AB12864			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0036 **Sample Date:** 9/24/2013 **IDEM Sample #:** AB12903
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	77.6 %		ASTM D888-09(C)
DO	7.75 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	802 umho/cm		SM2510B
Temperature	15.34 °C		SM2550B(2)
Turbidity	47.9 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 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 #:	Result	Reporting Limit	Method
AB12903			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	209.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0036 **Sample Date:** 10/1/2013 **IDEM Sample #:** AB12942
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	65.8 %		ASTM D888-09(C)
DO	6.31 mg/L		ASTM D888-09(C)
pH (Field)	7.49 SU		EPA 150.2
Specific Conductance (Field)	829 umho/cm		SM2510B
Temperature	17.32 °C		SM2550B(2)
Turbidity	58 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
AB12942			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	172.3 MPN/100mL	1	SM9223B

SiteID: LMG-05-0036 **Sample Date:** 10/8/2013 **IDEM Sample #:** AB12981
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	63.5 %		ASTM D888-09(C)
DO	6.44 mg/L		ASTM D888-09(C)
pH (Field)	7.42 SU		EPA 150.2
Specific Conductance (Field)	640 umho/cm		SM2510B
Temperature	14.69 °C		SM2550B(2)
Turbidity	62.2 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 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 #:	Result	Reporting Limit	Method
AB12981			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	298.7 MPN/100mL	1	SM9223B

SiteID: LMG-05-0036 **Sample Date:** 10/9/2013 **IDEM Sample #:** AB14889
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	55.2 %		ASTM D888-09(C)
DO	5.62 mg/L		ASTM D888-09(C)
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	646 umho/cm		SM2510B
Temperature	14.41 °C		SM2550B(2)
Turbidity (Hach)	52.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	10	EPA 310.2
Chloride	66 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	230 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	36 mg/L	1	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	45 mg/L	1.3	EPA 300.0
COD	30 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.06 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.14 mg/L	0.05	EPA 365.1
TKN	0.59 mg/L	0.3	SM4500N(Org)-D
TOC	8.9 mg/L	2	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: LMG-05-0018 **USGS Hydrologic Unit:** 040400010502
Stream Name: Main Beaver Dam Ditch **County:** Lake
Description: Grant Street **Latitude:** 41 26 7.99158 **Longitude:** -87 21 17.01167
Drainage: 19.073 **Site Number:** 13T-023

SiteID: LMG-05-0018 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12826
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	71 %		ASTM D888-09(C)
DO	6.1 mg/L		ASTM D888-09(C)
pH (Field)	7.52 SU		EPA 150.2
Specific Conductance (Field)	729 umho/cm		SM2510B
Temperature	22.91 °C		SM2550B(2)
Turbidity	1.2 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12826	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	73.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0018 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14617
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	80.7 %		ASTM D888-09(C)
DO	6.95 mg/L		ASTM D888-09(C)
pH (Field)	7.26 SU		EPA 150.2
Specific Conductance (Field)	701 umho/cm		SM2510B
Temperature	22.72 °C		SM2550B(2)
Turbidity (Hach)	1.32 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	3.9153 cf/sec		TM D5389-95/D3858
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 #: A994706	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	82 mg/L	10	EPA 310.2
Chloride	82 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	190 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	< 1 mg/L	1	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	43 mg/L	0.25	EPA 300.0
COD	17 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.13 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	20 mg/L	0.2	EPA 353.2
Phosphorus, Total	1.1 mg/L	0.25	EPA 365.1
TKN	0.43 mg/L	0.3	SM4500N(Org)-D
TOC	5.5 mg/L	1	SM5310C

SiteID: LMG-05-0018 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12865
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	68.4 %		ASTM D888-09(C)
DO	6.31 mg/L		ASTM D888-09(C)
pH (Field)	7.57 SU		EPA 150.2
Specific Conductance (Field)	742 umho/cm		SM2510B
Temperature	19.18 °C		SM2550B(2)
Turbidity	1.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12865	Result	Reporting Limit	Method
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: LMG-05-0018 Sample Date: 9/24/2013 IDEM Sample #: AB12904
 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	70 %		ASTM D888-09(C)
DO	6.5 mg/L		ASTM D888-09(C)
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	822 umho/cm		SM2510B
Temperature	18.73 °C		SM2550B(2)
Turbidity	2.5 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12904	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	112.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0018 Sample Date: 10/1/2013 IDEM Sample #: AB12943
 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	63.2 %		ASTM D888-09(C)
DO	5.77 mg/L		ASTM D888-09(C)
pH (Field)	7.34 SU		EPA 150.2
Specific Conductance (Field)	768 umho/cm		SM2510B
Temperature	19.69 °C		SM2550B(2)
Turbidity	1 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12943	Result	Reporting Limit	Method
Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
E. coli	105 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0018 Sample Date: 10/8/2013 IDEM Sample #: AB12982
 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	70 %		ASTM D888-09(C)
DO	6.6 mg/L		ASTM D888-09(C)
pH (Field)	7.48 SU		EPA 150.2
Specific Conductance (Field)	782 umho/cm		SM2510B
Temperature	18.03 °C		SM2550B(2)
Turbidity	1.5 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation
Lab ID #: AB12982	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	79.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0018 Sample Date: 10/9/2013 IDEM Sample #: AB14890
 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	68.9 %		ASTM D888-09(C)
DO	6.51 mg/L		ASTM D888-09(C)
pH (Field)	7.52 SU		EPA 150.2
Specific Conductance (Field)	808 umho/cm		SM2510B
Temperature	17.97 °C		SM2550B(2)
Turbidity (Hach)	3.81 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	6.9823 cf/sec		TM D5389-95/D3858
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 #: A997707	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	120 mg/L	10	EPA 310.2
Chloride	87 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	230 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	6 mg/L	1	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
Sulfate	44 mg/L	1.3	EPA 300.0
COD	19 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.11 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	18 mg/L	0.5	EPA 353.2
Phosphorus, Total	0.67 mg/L	0.05	EPA 365.1
TKN	1 mg/L	0.3	SM4500N(Org)-D
TOC	6.4 mg/L	2	SM5310C

SiteID: LMG-05-0018 **Sample Date:** 11/4/2013 **IDEM Sample #:** AB14963
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	74.6 %		ASTM D888-09(C)
DO	7.91 mg/L		ASTM D888-09(C)
pH (Field)	7.37 SU		EPA 150.2
Specific Conductance (Field)	805 umho/cm		SM2510B
Temperature	12.59 °C		SM2550B(2)
Turbidity (Hach)	6.1 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	15.3815 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #: AA00649	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg/L	10	EPA 310.2
Chloride	88 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	260 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	2 mg/L	1	SM2540D
Solids, Total (TS)	470 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420 mg/L	10	SM2540C
Sulfate	82 mg/L	2.5	EPA 300.0
COD	23 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	7.5 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.31 mg/L	0.05	EPA 365.1
TKN	1.5 mg/L	0.3	SM4500N(Org)-D
TOC	8.9 mg/L	2	SM5310C

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

SiteID: LMG-05-0018 **Sample Date:** 12/9/2013 **IDEM Sample #:** AB15267
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	79.8 %		ASTM D888-09(C)
DO	9.22 mg/L		ASTM D888-09(C)
pH (Field)	7.32 SU		EPA 150.2
Specific Conductance (Field)	900 umho/cm		SM2510B
Temperature	8.93 °C		SM2550B(2)
Turbidity (Hach)	9.56 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Flow	5.6014 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	120 mg/L	10	EPA 310.2
Chloride	99 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	220 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	14 mg/L	1	SM2540D
Solids, Total (TS)	530 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450 mg/L	10	SM2540C
Sulfate	72 mg/L	2.5	EPA 300.0
COD	34 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	16 mg/L	0.2	EPA 353.2
Phosphorus, Total	1.7 mg/L	0.25	EPA 365.1
TKN	1.3 mg/L	0.3	SM4500N(Org)-D
TOC	7.5 mg/L	5	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: LMG-05-0019 **USGS Hydrologic Unit:** 040400010501
Stream Name: Tributary of Main Beaver Dam Ditch **County:** Lake
Description: Summit Street **Latitude:** 41 25 38.38773 **Longitude:** -87 22 9.47453
Drainage: 2.793 **Site Number:** 13T-024

SiteID: LMG-05-0019 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12827
Water Flow Type Stagnant **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	8.6 %		ASTM D888-09(C)
DO	0.81 mg/L		ASTM D888-09(C)
pH (Field)	7.06 SU		EPA 150.2
Specific Conductance (Field)	1388 umho/cm		SM2510B
Temperature	17.89 °C		SM2550B(2)
Turbidity	8.5 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12827	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
E. coli	148.3 MPN/100mL	1	SM9223B

<u>Lab ID #:</u> AB12827a	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B

SiteID: LMG-05-0019 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14618
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	6.5 %		ASTM D888-09(C)
DO	0.65 mg/L		ASTM D888-09(C)
pH (Field)	7.04 SU		EPA 150.2
Specific Conductance (Field)	1355 umho/cm		SM2510B
Temperature	17.42 °C		SM2550B(2)
Turbidity (Hach)	10.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: A994708	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	280 mg/L	20	EPA 310.2
Chloride	190 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	360 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	18 mg/L	1	SM2540D
Solids, Total (TS)	720 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	680 mg/L	10	SM2540C
Sulfate	80 mg/L	2.5	EPA 300.0
COD	24 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.63 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.06 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.18 mg/L	0.05	EPA 365.1
TKN	1.5 mg/L	0.3	SM4500N(Org)-D
TOC	7.3 mg/L	5	SM5310C

SiteID: LMG-05-0019 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12866

Water Flow Type Stagnant **Water Appearance** Black **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	23.8 %		ASTM D888-09(C)
DO	2.36 mg/L		ASTM D888-09(C)
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	1556 umho/cm		SM2510B
Temperature	15.63 °C		SM2550B(2)
Turbidity	5.2 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12866	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

SiteID: LMG-05-0019 Sample Date: 9/24/2013 IDEM Sample #: AB12905
 Water Flow Type Stagnant Water Appearance Black Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	17.6 %		ASTM D888-09(C)
DO	1.78 mg/L		ASTM D888-09(C)
pH (Field)	7.43 SU		EPA 150.2
Specific Conductance (Field)	921 umho/cm		SM2510B
Temperature	14.87 °C		SM2550B(2)
Turbidity	9.7 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12905	Result	Reporting Limit	Method
E. coli	275.5 MPN/100mL	1	SM9223B

Lab ID #: AB12905a	Result	Reporting Limit	Method
Coliforms (Total)	19863 MPN/100mL	10	SM9223B

SiteID: LMG-05-0019 Sample Date: 10/1/2013 IDEM Sample #: AB12944
 Water Flow Type Stagnant Water Appearance Black Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	14.2 %		ASTM D888-09(C)
DO	1.42 mg/L		ASTM D888-09(C)
pH (Field)	7.42 SU		EPA 150.2
Specific Conductance (Field)	344 umho/cm		SM2510B
Temperature	15.49 °C		SM2550B(2)
Turbidity	18.3 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12944	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	2419.6 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0019 **Sample Date:** 10/7/2013 **IDEM Sample #:** AB14891
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	16.6 %		ASTM D888-09(C)
DO	1.65 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	835 umho/cm		SM2510B
Temperature	15.49 °C		SM2550B(2)
Turbidity (Hach)	6.6 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 #: A997708	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	10	EPA 310.2
Chloride	120 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	240 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	8 mg/L	1	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460 mg/L	10	SM2540C
Sulfate	67 mg/L	2.5	EPA 300.0
COD	37 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.22 mg/L	0.05	EPA 365.1
TKN	1.4 mg/L	0.3	SM4500N(Org)-D
TOC	13 mg/L	5	SM5310C

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

SiteID: LMG-05-0019

Sample Date: 10/8/2013

IDEM Sample #: AB12983

Water Flow Type Run

Water Appearance Black

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	26.1 %		ASTM D888-09(C)
DO	2.66 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	876 umho/cm		SM2510B
Temperature	14.64 °C		SM2550B(2)
Turbidity	2.5 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #: AB12983	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1413.6 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	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: LMG-05-0020 **USGS Hydrologic Unit:** 040400010501
Stream Name: Main Beaver Dam Ditch **County:** Lake
Description: Clark Road **Latitude:** 41 26 30.26862 **Longitude:** -87 23 33.29661
Drainage: 9.860 **Site Number:** 13T-025

SiteID: LMG-05-0020 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12828
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	7.9 %		ASTM D888-09(C)
DO	0.67 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	534 umho/cm		SM2510B
Temperature	23.05 °C		SM2550B(2)
Turbidity	14.4 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: LMG-05-0020 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14619
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	18 %		ASTM D888-09(C)
DO	1.54 mg/L		ASTM D888-09(C)
pH (Field)	7.43 SU		EPA 150.2
Specific Conductance (Field)	654 umho/cm		SM2510B
Temperature	22.29 °C		SM2550B(2)
Turbidity (Hach)	6.97 NTU		EPA 180.1
Air Temp	6 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 #: A994709	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	260 mg/L	50	EPA 310.2
Chloride	50 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	270 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	25 mg/L	1	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390 mg/L	10	SM2540C
Sulfate	11 mg/L	0.25	EPA 300.0
COD	61 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.19 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.013 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.42 mg/L	0.05	EPA 365.1
TKN	2.6 mg/L	0.3	SM4500N(Org)-D
TOC	17 mg/L	1	SM5310C

SiteID: LMG-05-0020 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12867

Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	17.3 %		ASTM D888-09(C)
DO	1.81 mg/L		ASTM D888-09(C)
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	836 umho/cm		SM2510B
Temperature	13.95 °C		SM2550B(2)
Turbidity	19.6 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12867	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	71.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0020 **Sample Date:** 9/24/2013 **IDEM Sample #:** AB12906
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
	% Sat	18.9 %	ASTM D888-09(C)
	DO	2.01 mg/L	ASTM D888-09(C)
	pH (Field)	7.46 SU	EPA 150.2
	Specific Conductance (Field)	858 umho/cm	SM2510B
	Temperature	12.5 °C	SM2550B(2)
	Turbidity	17.1 NTU	SM2130B Mod
	Air Temp	3 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	9 Lookup	Observation
	Wind Strength	1 Lookup	Observation
Lab ID #: AB12906			
	Coliforms (Total)	1299.7 MPN/100mL	1 SM9223B
	E. coli	64.5 MPN/100mL	1 SM9223B

SiteID: LMG-05-0020 **Sample Date:** 10/1/2013 **IDEM Sample #:** AB12945
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
	% Sat	20.4 %	ASTM D888-09(C)
	DO	2.07 mg/L	ASTM D888-09(C)
	pH (Field)	7.41 SU	EPA 150.2
	Specific Conductance (Field)	840 umho/cm	SM2510B
	Temperature	14.6 °C	SM2550B(2)
	Turbidity	10.2 NTU	SM2130B Mod
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	2 Lookup	Observation
Lab ID #: AB12945			
	Coliforms (Total)	1119.9 MPN/100mL	1 SM9223B
	E. coli	73.8 MPN/100mL	1 SM9223B

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

SiteID: LMG-05-0020

Sample Date: 10/7/2013

IDEM Sample #: AB14892

Water Flow Type Stagnant

Water Appearance Clear

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	32.4 %		ASTM D888-09(C)
DO	3.28 mg/L		ASTM D888-09(C)
pH (Field)	7.57 SU		EPA 150.2
Specific Conductance (Field)	916 umho/cm		SM2510B
Temperature	14.67 °C		SM2550B(2)
Turbidity (Hach)	10.8 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 #: A997709	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	350 mg/L	50	EPA 310.2
Chloride	30 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	400 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	10 mg/L	1	SM2540D
Solids, Total (TS)	570 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	550 mg/L	10	SM2540C
Sulfate	110 mg/L	1.3	EPA 300.0
COD	< 10 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.11 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.058 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.32 mg/L	0.05	EPA 365.1
TKN	0.91 mg/L	0.3	SM4500N(Org)-D
TOC	7.6 mg/L	2	SM5310C

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

SiteID: LMG-05-0020

Sample Date: 10/8/2013

IDEM Sample #: AB12984

Water Flow Type Stagnant

Water Appearance Murky

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	20 %		ASTM D888-09(C)
DO	2.14 mg/L		ASTM D888-09(C)
pH (Field)	7.48 SU		EPA 150.2
Specific Conductance (Field)	917 umho/cm		SM2510B
Temperature	12.86 °C		SM2550B(2)
Turbidity	3.9 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12984	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	69.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC	WD	WS	AT		
Sky Conditions	Wind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	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: LMG-05-0021 **USGS Hydrologic Unit:** 040400010501
Stream Name: Tributary of Main Beaver Dam Ditch **County:** Lake
Description: 101st Avenue **Latitude:** 41 26 5.82644 **Longitude:** -87 24 10.89102
Drainage: 1.536 **Site Number:** 13T-026

SiteID: LMG-05-0021 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12829
Water Flow Type Stagnant **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	16.3 %		ASTM D888-09(C)
DO	1.41 mg/L		ASTM D888-09(C)
pH (Field)	7.36 SU		EPA 150.2
Specific Conductance (Field)	635 umho/cm		SM2510B
Temperature	22.77 °C		SM2550B(2)
Turbidity	8.4 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	19.7 MPN/100mL	1	SM9223B

SiteID: LMG-05-0021 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14620
Water Flow Type Stagnant **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	8.5 %		ASTM D888-09(C)
DO	0.74 mg/L		ASTM D888-09(C)
pH (Field)	7.56 SU		EPA 150.2
Specific Conductance (Field)	588 umho/cm		SM2510B
Temperature	23.12 °C		SM2550B(2)
Turbidity (Hach)	8.68 NTU		EPA 180.1
Air Temp	6 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 #: A994710	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	20	EPA 310.2
Chloride	63 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	230 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	11 mg/L	1	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	4.5 mg/L	0.25	EPA 300.0
COD	59 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.01 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.36 mg/L	0.05	EPA 365.1
TKN	1.6 mg/L	0.3	SM4500N(Org)-D
TOC	17 mg/L	10	SM5310C

SiteID: LMG-05-0021 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12868

Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	22.3 %		ASTM D888-09(C)
DO	2.27 mg/L		ASTM D888-09(C)
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	626 umho/cm		SM2510B
Temperature	14.57 °C		SM2550B(2)
Turbidity	22.2 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AB12868	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	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: LMG-05-0021 **Sample Date:** 9/24/2013 **IDEM Sample #:** AB12907
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
	% Sat	14.5 %	ASTM D888-09(C)
	DO	1.5 mg/L	ASTM D888-09(C)
	pH (Field)	7.28 SU	EPA 150.2
	Specific Conductance (Field)	664 umho/cm	SM2510B
	Temperature	13.62 °C	SM2550B(2)
	Turbidity	12.1 NTU	SM2130B Mod
	Air Temp	3 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	9 Lookup	Observation
	Wind Strength	1 Lookup	Observation
Lab ID #: AB12907			
	Coliforms (Total)	980.4 MPN/100mL	1 SM9223B
	E. coli	34.1 MPN/100mL	1 SM9223B

SiteID: LMG-05-0021 **Sample Date:** 10/1/2013 **IDEM Sample #:** AB12946
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
	% Sat	16.1 %	ASTM D888-09(C)
	DO	1.61 mg/L	ASTM D888-09(C)
	pH (Field)	7.35 SU	EPA 150.2
	Specific Conductance (Field)	668 umho/cm	SM2510B
	Temperature	15.42 °C	SM2550B(2)
	Turbidity	12.9 NTU	SM2130B Mod
	Air Temp	4 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	2 Lookup	Observation
Lab ID #: AB12946			
	Coliforms (Total)	1553.1 MPN/100mL	1 SM9223B
	E. coli	18.1 MPN/100mL	1 SM9223B

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

SiteID: LMG-05-0021

Sample Date: 10/7/2013

IDEM Sample #: AB14893

Water Flow Type Stagnant

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	11.4 %		ASTM D888-09(C)
DO	1.13 mg/L		ASTM D888-09(C)
pH (Field)	7.31 SU		EPA 150.2
Specific Conductance (Field)	665 umho/cm		SM2510B
Temperature	14.7 °C		SM2550B(2)
Turbidity (Hach)	32.1 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 #: A997710	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	230 mg/L	50	EPA 310.2
Chloride	46 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	280 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	13 mg/L	1	SM2540D
Solids, Total (TS)	400 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
Sulfate	16 mg/L	1.3	EPA 300.0
COD	55 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.01 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.62 mg/L	0.05	EPA 365.1
TKN	1.8 mg/L	0.3	SM4500N(Org)-D
TOC	22 mg/L	5	SM5310C

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

SiteID: LMG-05-0021

Sample Date: 10/8/2013

IDEM Sample #: AB12985

Water Flow Type Stagnant

Water Appearance Murky

Water Depth Algae?

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

Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	18.7 %		ASTM D888-09(C)
DO	1.95 mg/L		ASTM D888-09(C)
pH (Field)	7.17 SU		EPA 150.2
Specific Conductance (Field)	678 umho/cm		SM2510B
Temperature	13.85 °C		SM2550B(2)
Turbidity	22.2 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12985	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	325.5 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: LMG-05-0022 **USGS Hydrologic Unit:** 040400010501
Stream Name: Main Beaver Dam Ditch **County:** Lake
Description: Blaine Street **Latitude:** 41 26 53.56478 **Longitude:** -87 25 35.34004
Drainage: 2.347 **Site Number:** 13T-027

SiteID: LMG-05-0022 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12830
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	12.9 %		ASTM D888-09(C)
DO	1.11 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	765 umho/cm		SM2510B
Temperature	22.91 °C		SM2550B(2)
Turbidity	20.8 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

SiteID: LMG-05-0022 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14621
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	21.4 %		ASTM D888-09(C)
DO	1.79 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	773 umho/cm		SM2510B
Temperature	23.53 °C		SM2550B(2)
Turbidity (Hach)	52.7 NTU		EPA 180.1
Air Temp	6 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 #: A994711	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	190 mg/L	20	EPA 310.2
Chloride	110 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	260 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	78 mg/L	1	SM2540D
Solids, Total (TS)	520 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	21 mg/L	0.25	EPA 300.0
COD	100 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.12 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.01 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.74 mg/L	0.05	EPA 365.1
TKN	1.5 mg/L	0.3	SM4500N(Org)-D
TOC	17 mg/L	10	SM5310C

SiteID: LMG-05-0022 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12869

Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	33.7 %		ASTM D888-09(C)
DO	3.44 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	807 umho/cm		SM2510B
Temperature	14.33 °C		SM2550B(2)
Turbidity	15 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12869	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	52.8 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0022 **Sample Date:** 9/24/2013 **IDEM Sample #:** AB12908
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	40.8 %		ASTM D888-09(C)
DO	4.24 mg/L		ASTM D888-09(C)
pH (Field)	7.65 SU		EPA 150.2
Specific Conductance (Field)	798 umho/cm		SM2510B
Temperature	13.57 °C		SM2550B(2)
Turbidity	10.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12908			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0022 **Sample Date:** 10/1/2013 **IDEM Sample #:** AB12947
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Covered in duckweed

Lab ID #:	Result	Reporting Limit	Method
% Sat	38.3 %		ASTM D888-09(C)
DO	3.77 mg/L		ASTM D888-09(C)
pH (Field)	7.73 SU		EPA 150.2
Specific Conductance (Field)	768 umho/cm		SM2510B
Temperature	16.11 °C		SM2550B(2)
Turbidity	14 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12947			
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	1413.6 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0022

Sample Date: 10/7/2013

IDEM Sample #: AB14894

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	68.5 %		ASTM D888-09(C)
DO	6.79 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	784 umho/cm		SM2510B
Temperature	15.49 °C		SM2550B(2)
Turbidity (Hach)	21.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: A997711	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	170 mg/L	10	EPA 310.2
Chloride	73 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	280 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	12 mg/L	1	SM2540D
Solids, Total (TS)	490 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	84 mg/L	1.3	EPA 300.0
COD	22 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.067 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.096 mg/L	0.05	EPA 365.1
TKN	0.84 mg/L	0.3	SM4500N(Org)-D
TOC	7.4 mg/L	2	SM5310C

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

SiteID: LMG-05-0022

Sample Date: 10/8/2013

IDEM Sample #: AB12986

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	36.2 %		ASTM D888-09(C)
DO	3.73 mg/L		ASTM D888-09(C)
pH (Field)	7.49 SU		EPA 150.2
Specific Conductance (Field)	771 umho/cm		SM2510B
Temperature	13.98 °C		SM2550B(2)
Turbidity	12.8 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12986	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	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: LMG-05-0023 **USGS Hydrologic Unit:** 040400010503
Stream Name: Tributary of Turkey Creek **County:** Lake
Description: 77th Avenue **Latitude:** 41 28 43.21702 **Longitude:** -87 26 17.78891
Drainage: 2.840 **Site Number:** 13T-028

SiteID: LMG-05-0023 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12831
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Isolated pool

Lab ID #:	Result	Reporting Limit	Method
% Sat	17.4 %		ASTM D888-09(C)
DO	1.51 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	1001 umho/cm		SM2510B
Temperature	22.3 °C		SM2550B(2)
Turbidity	64.4 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: LMG-05-0023 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14622
Water Flow Type Pool **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	30.3 %		ASTM D888-09(C)
DO	2.61 mg/L		ASTM D888-09(C)
pH (Field)	7.49 SU		EPA 150.2
Specific Conductance (Field)	967 umho/cm		SM2510B
Temperature	22.83 °C		SM2550B(2)
Turbidity (Hach)	127 NTU		EPA 180.1
Air Temp	6 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 #: A994712	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	20	EPA 310.2
Chloride	110 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	360 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	130 mg/L	1	SM2540D
Solids, Total (TS)	760 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	620 mg/L	10	SM2540C
Sulfate	120 mg/L	2.5	EPA 300.0
COD	120 mg/L	10	EPA 410.4
Nitrogen, Ammonia	2.6 mg/L	0.5	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.01 mg/L	0.01	EPA 353.2
Phosphorus, Total	2.8 mg/L	0.25	EPA 365.1
TKN	2.9 mg/L	0.3	SM4500N(Org)-D
TOC	22 mg/L	10	SM5310C

SiteID: LMG-05-0023 **Sample Date:** 10/7/2013 **IDEM Sample #:** AB14895
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	56.6 %		ASTM D888-09(C)
DO	5.92 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	962 umho/cm		SM2510B
Temperature	13.07 °C		SM2550B(2)
Turbidity (Hach)	2.12 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: A997712	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	20	EPA 310.2
Chloride	90 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	340 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	1 mg/L	1	SM2540D
Solids, Total (TS)	580 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	560 mg/L	10	SM2540C
Sulfate	94 mg/L	1.3	EPA 300.0
COD	34 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.051 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.084 mg/L	0.05	EPA 365.1
TKN	0.49 mg/L	0.3	SM4500N(Org)-D
TOC	16 mg/L	5	SM5310C

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

SiteID: LMG-05-0023

Sample Date: 10/8/2013

IDEM Sample #: AB12987

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	47.9 %		ASTM D888-09(C)
DO	5.21 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	969 umho/cm		SM2510B
Temperature	11.53 °C		SM2550B(2)
Turbidity	1.2 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12987	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	770.1 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	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: LMG-05-0024 **USGS Hydrologic Unit:** 040400010503
Stream Name: Turkey Creek **County:** Lake
Description: Broad Street **Latitude:** 41 29 52.83355 **Longitude:** -87 25 39.23606
Drainage: 5.543 **Site Number:** 13T-029

SiteID: LMG-05-0024 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12832
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	49.6 %		ASTM D888-09(C)
DO	4.44 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	1182 umho/cm		SM2510B
Temperature	20.62 °C		SM2550B(2)
Turbidity	0.8 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	142.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0024 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB14623
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	89.7 %		ASTM D888-09(C)
DO	7.78 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	1169 umho/cm		SM2510B
Temperature	22.25 °C		SM2550B(2)
Turbidity (Hach)	2.2 NTU		EPA 180.1
Air Temp	6 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 #: A994713	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	390 mg/L	50	EPA 310.2
Chloride	91 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	540 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	2 mg/L	1	SM2540D
Solids, Total (TS)	740 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	720 mg/L	10	SM2540C
Sulfate	130 mg/L	1.3	EPA 300.0
COD	14 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	0.33 mg/L	0.3	SM4500N(Org)-D
TOC	3.5 mg/L	1	SM5310C

SiteID: LMG-05-0024 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12871
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	66 %		ASTM D888-09(C)
DO	6.94 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	1200 umho/cm		SM2510B
Temperature	13.01 °C		SM2550B(2)
Turbidity	1.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12871	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	123.6 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0024 Sample Date: 9/24/2013 IDEM Sample #: AB12910
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	64.8 %		ASTM D888-09(C)
DO	6.77 mg/L		ASTM D888-09(C)
pH (Field)	7.61 SU		EPA 150.2
Specific Conductance (Field)	1065 umho/cm		SM2510B
Temperature	13.33 °C		SM2550B(2)
Turbidity	5.5 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12910	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1553.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0024 Sample Date: 10/1/2013 IDEM Sample #: AB12949
 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	62.1 %		ASTM D888-09(C)
DO	6.13 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	1109 umho/cm		SM2510B
Temperature	15.8 °C		SM2550B(2)
Turbidity	4.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12949	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: LMG-05-0024

Sample Date: 10/7/2013

IDEM Sample #: AB14896

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	87.7 %		ASTM D888-09(C)
DO	8.9 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	795 umho/cm		SM2510B
Temperature	14.48 °C		SM2550B(2)
Turbidity (Hach)	5.96 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 #: A997713	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	20	EPA 310.2
Chloride	73 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	280 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	2 mg/L	1	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	440 mg/L	10	SM2540C
Sulfate	62 mg/L	1.3	EPA 300.0
COD	< 10 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.16 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.068 mg/L	0.05	EPA 365.1
TKN	0.78 mg/L	0.3	SM4500N(Org)-D
TOC	10 mg/L	5	SM5310C

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

SiteID: LMG-05-0024

Sample Date: 10/8/2013

IDEM Sample #: AB12988

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	66.9 %		ASTM D888-09(C)
DO	7.07 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	856 umho/cm		SM2510B
Temperature	12.83 °C		SM2550B(2)
Turbidity	3.3 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12988	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	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: LMG-05-0025 **USGS Hydrologic Unit:** 040400010503
Stream Name: Johnson Ditch **County:** Lake
Description: Oak Ridge Prairie County Park **Latitude:** 41 31 2.36617 **Longitude:** -87 23 45.32733
Drainage: 2.131 **Site Number:** 13T-030

SiteID: LMG-05-0025 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12834
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	45.1 %		ASTM D888-09(C)
DO	3.78 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	579 umho/cm		SM2510B
Temperature	24.2 °C		SM2550B(2)
Turbidity	2.9 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	195.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0025 **Sample Date:** 9/11/2013 **IDEM Sample #:** AB14625
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	107.6 %		ASTM D888-09(C)
DO	8.85 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	565 umho/cm		SM2510B
Temperature	25.17 °C		SM2550B(2)
Turbidity (Hach)	6 NTU		EPA 180.1
Air Temp	6 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 #: A994714	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	50	EPA 310.2
Chloride	17 mg/L	0.25	EPA 300.0
Hardness (as CaCO3)	250 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	5 mg/L	1	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	50 mg/L	1.3	EPA 300.0
COD	17 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.24 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.01 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	0.38 mg/L	0.3	SM4500N(Org)-D
TOC	5.5 mg/L	1	SM5310C

SiteID: LMG-05-0025 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12873

Water Flow Type Stagnant **Water Appearance** Clear **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	54.1 %		ASTM D888-09(C)
DO	5.37 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	587 umho/cm		SM2510B
Temperature	15.68 °C		SM2550B(2)
Turbidity	2.8 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12873	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	96 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0025 Sample Date: 9/24/2013 IDEM Sample #: AB12912
 Water Flow Type Pool Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	50 %		ASTM D888-09(C)
DO	4.92 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	583 umho/cm		SM2510B
Temperature	16.11 °C		SM2550B(2)
Turbidity	6 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12912	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0025 Sample Date: 10/1/2013 IDEM Sample #: AB12951
 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	44.7 %		ASTM D888-09(C)
DO	4.29 mg/L		ASTM D888-09(C)
pH (Field)	7.73 SU		EPA 150.2
Specific Conductance (Field)	603 umho/cm		SM2510B
Temperature	17.33 °C		SM2550B(2)
Turbidity	3.9 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12951	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	187.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0025

Sample Date: 10/7/2013

IDEM Sample #: AB14898

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	109.5 %		ASTM D888-09(C)
DO	10.91 mg/L		ASTM D888-09(C)
pH (Field)	8.33 SU		EPA 150.2
Specific Conductance (Field)	578 umho/cm		SM2510B
Temperature	15.64 °C		SM2550B(2)
Turbidity (Hach)	3.38 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 #: A997714	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	20	EPA 310.2
Chloride	19 mg/L	0.25	EPA 300.0
Hardness (as CaCO3)	250 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	< 1 mg/L	1	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
Sulfate	62 mg/L	2.5	EPA 300.0
COD	11 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.011 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-D
TOC	5.3 mg/L	2	SM5310C

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

SiteID: LMG-05-0025

Sample Date: 10/8/2013

IDEM Sample #: AB12990

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	56 %		ASTM D888-09(C)
DO	5.8 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	597 umho/cm		SM2510B
Temperature	13.75 °C		SM2550B(2)
Turbidity	3 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12990	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	133.3 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC	WD	WS	AT		
Sky Conditions	Wind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	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: LMG-05-0026 **USGS Hydrologic Unit:** 040400010503
Stream Name: Tributary of Turkey Creek **County:** Lake
Description: W Old Lincoln Hwy **Latitude:** 41 29 9.86802 **Longitude:** -87 23 36.21233
Drainage: 2.642 **Site Number:** 13T-031

SiteID: LMG-05-0026 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12835
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	82.3 %		ASTM D888-09(C)
DO	7.4 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	339 umho/cm		SM2510B
Temperature	20.48 °C		SM2550B(2)
Turbidity	4.3 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	24.9 MPN/100mL	1	SM9223B

SiteID: LMG-05-0026 **Sample Date:** 9/11/2013 **IDEM Sample #:** AB14626
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	86.5 %		ASTM D888-09(C)
DO	7.88 mg/L		ASTM D888-09(C)
pH (Field)	7.56 SU		EPA 150.2
Specific Conductance (Field)	317 umho/cm		SM2510B
Temperature	19.86 °C		SM2550B(2)
Turbidity (Hach)	2.53 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 #: A994715	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	130 mg/L	10	EPA 310.2
Chloride	20 mg/L	0.25	EPA 300.0
Hardness (as CaCO3)	140 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	1 mg/L	1	SM2540D
Solids, Total (TS)	180 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	180 mg/L	10	SM2540C
Sulfate	21 mg/L	0.25	EPA 300.0
COD	< 10 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.22 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.08 mg/L	0.05	EPA 365.1
TKN	0.46 mg/L	0.3	SM4500N(Org)-D
TOC	2.5 mg/L	1	SM5310C

SiteID: LMG-05-0026 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12874

Water Flow Type Stagnant **Water Appearance** Clear **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	80.3 %		ASTM D888-09(C)
DO	7.76 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	389 umho/cm		SM2510B
Temperature	17.24 °C		SM2550B(2)
Turbidity	3.5 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AB12874	Result	Reporting Limit	Method
Coliforms (Total)	686.7 MPN/100mL	1	SM9223B
E. coli	6.3 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0026 Sample Date: 9/24/2013 IDEM Sample #: AB12913
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	80.8 %		ASTM D888-09(C)
DO	8.09 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	409 umho/cm		SM2510B
Temperature	15.3 °C		SM2550B(2)
Turbidity	20.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12913	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1046.2 MPN/100mL	1	SM9223B

SiteID: LMG-05-0026 Sample Date: 10/1/2013 IDEM Sample #: AB12952
 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	78.8 %		ASTM D888-09(C)
DO	7.58 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	405 umho/cm		SM2510B
Temperature	17.21 °C		SM2550B(2)
Turbidity	4.8 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation
Lab ID #: AB12952	Result	Reporting Limit	Method
Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
E. coli	98.7 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0026

Sample Date: 10/7/2013

IDEM Sample #: AB14899

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	86.9 %		ASTM D888-09(C)
DO	8.66 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	485 umho/cm		SM2510B
Temperature	15.47 °C		SM2550B(2)
Turbidity (Hach)	47.2 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: A997715	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	110 mg/L	10	EPA 310.2
Chloride	37 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	170 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	22 mg/L	1	SM2540D
Solids, Total (TS)	300 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	36 mg/L	1.3	EPA 300.0
COD	22 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.19 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.14 mg/L	0.05	EPA 365.1
TKN	0.47 mg/L	0.3	SM4500N(Org)-D
TOC	6.6 mg/L	1	SM5310C

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

SiteID: LMG-05-0026

Sample Date: 10/8/2013

IDEM Sample #: AB12991

Water Flow Type Run

Water Appearance Murky

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	81.5 %		ASTM D888-09(C)
DO	8.5 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	485 umho/cm		SM2510B
Temperature	13.47 °C		SM2550B(2)
Turbidity	25.8 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12991	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	547.5 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: LMG-05-0027 **USGS Hydrologic Unit:** 040400010503
Stream Name: Turkey Creek **County:** Lake
Description: SR 55 **Latitude:** 41 29 55.14927 **Longitude:** -87 21 53.14879
Drainage: 21.179 **Site Number:** 13T-032

SiteID: LMG-05-0027 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12836
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	63 %		ASTM D888-09(C)
DO	5.29 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	819 umho/cm		SM2510B
Temperature	24.02 °C		SM2550B(2)
Turbidity	7.3 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: LMG-05-0027 **Sample Date:** 9/11/2013 **IDEM Sample #:** AB14627
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	71.8 %		ASTM D888-09(C)
DO	6.09 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	791 umho/cm		SM2510B
Temperature	23.55 °C		SM2550B(2)
Turbidity (Hach)	6.93 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	2.427 cf/sec		TM D5389-95/D3858
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 #: A994716	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	300 mg/L	50	EPA 310.2
Chloride	29 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	390 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	5 mg/L	1	SM2540D
Solids, Total (TS)	520 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	500 mg/L	10	SM2540C
Sulfate	110 mg/L	1.3	EPA 300.0
COD	< 10 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.022 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.058 mg/L	0.05	EPA 365.1
TKN	0.35 mg/L	0.3	SM4500N(Org)-D
TOC	4.6 mg/L	1	SM5310C

SiteID: LMG-05-0027 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12875

Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	71.9 %		ASTM D888-09(C)
DO	7.28 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	757 umho/cm		SM2510B
Temperature	14.67 °C		SM2550B(2)
Turbidity	7.9 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12875	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	185 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0027 Sample Date: 9/24/2013 IDEM Sample #: AB12914
 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	74.4 %		ASTM D888-09(C)
DO	7.59 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	793 umho/cm		SM2510B
Temperature	14.35 °C		SM2550B(2)
Turbidity	7.1 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12914	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	125 MPN/100mL	1	SM9223B

SiteID: LMG-05-0027 Sample Date: 10/1/2013 IDEM Sample #: AB12953
 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	66.6 %		ASTM D888-09(C)
DO	6.47 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	884 umho/cm		SM2510B
Temperature	16.63 °C		SM2550B(2)
Turbidity	7 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12953	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	101.9 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0027

Sample Date: 10/7/2013

IDEM Sample #: AB14900

Water Flow Type Glide

Water Appearance Clear

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	78.5 %		ASTM D888-09(C)
DO	8.11 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	703 umho/cm		SM2510B
Temperature	13.77 °C		SM2550B(2)
Turbidity (Hach)	7.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	6.9981 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: A997716	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	20	EPA 310.2
Chloride	42 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	280 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	1	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	79 mg/L	1.3	EPA 300.0
COD	17 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.13 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	0.53 mg/L	0.3	SM4500N(Org)-D
TOC	6 mg/L	1	SM5310C

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

SiteID: LMG-05-0027 Sample Date: 10/8/2013 IDEM Sample #: AB12992
 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	72.2 %		ASTM D888-09(C)
DO	7.56 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	765 umho/cm		SM2510B
Temperature	13.25 °C		SM2550B(2)
Turbidity	8.6 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation
Lab ID #: AB12992	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	157.6 MPN/100mL	1	SM9223B

SiteID: LMG-05-0027 Sample Date: 11/4/2013 IDEM Sample #: AB14964
 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	90 %		ASTM D888-09(C)
DO	10.52 mg/L		ASTM D888-09(C)
pH (Field)	7.56 SU		EPA 150.2
Specific Conductance (Field)	767 umho/cm		SM2510B
Temperature	8.48 °C		SM2550B(2)
Turbidity (Hach)	14.1 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	11.4082 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	4 Lookup		Observation

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

Lab ID #: AA00651	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	200 mg/L	50	EPA 310.2
Chloride	58 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	310 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	8 mg/L	1	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	98 mg/L	2.5	EPA 300.0
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.11 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.35 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	1.1 mg/L	0.3	SM4500N(Org)-D
TOC	8 mg/L	1	SM5310C

SiteID: LMG-05-0027 **Sample Date:** 12/9/2013 **IDEM Sample #:** AB15268
Water Flow Type Glide **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	87.2 %		ASTM D888-09(C)
DO	12.62 mg/L		ASTM D888-09(C)
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	938 umho/cm		SM2510B
Temperature	0.32 °C		SM2550B(2)
Turbidity (Hach)	10.7 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Flow	5.1056 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AA04583	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	260 mg/L	50	EPA 310.2
Chloride	55 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	440 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	8 mg/L	1	SM2540D
Solids, Total (TS)	570 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	550 mg/L	10	SM2540C
Sulfate	130 mg/L	2.5	EPA 300.0
COD	21 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.15 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.17 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	0.66 mg/L	0.3	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**

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: LMG-05-0028 **USGS Hydrologic Unit:** 040400010503
Stream Name: Tributary of Turkey Creek **County:** Lake
Description: 73rd Avenue **Latitude:** 41 29 8.36566 **Longitude:** -87 22 25.01390
Drainage: 1.731 **Site Number:** 13T-033

SiteID: LMG-05-0028 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12837
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Rip rap dam upstream of site

Lab ID #:	Result	Reporting Limit	Method
% Sat	24.8 %		ASTM D888-09(C)
DO	2.14 mg/L		ASTM D888-09(C)
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	1241 umho/cm		SM2510B
Temperature	22.52 °C		SM2550B(2)
Turbidity	34.5 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	103.9 MPN/100mL	1	SM9223B

SiteID: LMG-05-0028 **Sample Date:** 9/11/2013 **IDEM Sample #:** AB14628
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	26.5 %		ASTM D888-09(C)
DO	2.26 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	1356 umho/cm		SM2510B
Temperature	22.32 °C		SM2550B(2)
Turbidity (Hach)	16.1 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID #: A994717	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	390 mg/L	50	EPA 310.2
Chloride	73 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	430 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	44 mg/L	1	SM2540D
Solids, Total (TS)	630 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	540 mg/L	10	SM2540C
Sulfate	33 mg/L	0.25	EPA 300.0
COD	36 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.01 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.14 mg/L	0.05	EPA 365.1
TKN	1.3 mg/L	0.3	SM4500N(Org)-D
TOC	7.6 mg/L	5	SM5310C

SiteID: LMG-05-0028 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12876

Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments: Rip rap dam upstream of site

Lab ID #:	Result	Reporting Limit	Method
% Sat	49.7 %		ASTM D888-09(C)
DO	5.2 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	877 umho/cm		SM2510B
Temperature	13.28 °C		SM2550B(2)
Turbidity	19.5 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12876	Result	Reporting Limit	Method
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: LMG-05-0028 **Sample Date:** 9/24/2013 **IDEM Sample #:** AB12915
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Rip rap dam upstream of site

Lab ID #:	Result	Reporting Limit	Method
% Sat	86.4 %		ASTM D888-09(C)
DO	9.13 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	620 umho/cm		SM2510B
Temperature	12.77 °C		SM2550B(2)
Turbidity	7.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AB12915	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: LMG-05-0028 **Sample Date:** 10/1/2013 **IDEM Sample #:** AB12954
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Rip rap dam upstream of site

Lab ID #:	Result	Reporting Limit	Method
% Sat	67 %		ASTM D888-09(C)
DO	6.62 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	793 umho/cm		SM2510B
Temperature	15.91 °C		SM2550B(2)
Turbidity	10.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: AB12954	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	547.5 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0028

Sample Date: 10/7/2013

IDEM Sample #: AB14901

Water Flow Type Glide

Water Appearance Clear

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	96.9 %		ASTM D888-09(C)
DO	9.63 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	558 umho/cm		SM2510B
Temperature	15.56 °C		SM2550B(2)
Turbidity (Hach)	6.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: A997717	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	10	EPA 310.2
Chloride	41 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	200 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	4 mg/L	1	SM2540D
Solids, Total (TS)	290 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300 mg/L	10	SM2540C
Sulfate	34 mg/L	1.3	EPA 300.0
COD	22 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.13 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.057 mg/L	0.05	EPA 365.1
TKN	0.47 mg/L	0.3	SM4500N(Org)-D
TOC	7.1 mg/L	1	SM5310C

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

SiteID: LMG-05-0028

Sample Date: 10/8/2013

IDEM Sample #: AB12993

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	84.9 %		ASTM D888-09(C)
DO	9.14 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	586 umho/cm		SM2510B
Temperature	11.97 °C		SM2550B(2)
Turbidity	9 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12993	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	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: LMG-05-0029 **USGS Hydrologic Unit:** 040400010505
Stream Name: Tributary of Turkey Creek **County:** Lake
Description: Arthur Street **Latitude:** 41 30 21.17193 **Longitude:** -87 21 31.34692
Drainage: 5.595 **Site Number:** 13T-034

SiteID: LMG-05-0029 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12838
Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	8.4 %		ASTM D888-09(C)
DO	0.71 mg/L		ASTM D888-09(C)
pH (Field)	7.4 SU		EPA 150.2
Specific Conductance (Field)	833 umho/cm		SM2510B
Temperature	23.89 °C		SM2550B(2)
Turbidity	97.2 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #:	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	131.4 MPN/100mL	1	SM9223B

SiteID: LMG-05-0029 **Sample Date:** 9/11/2013 **IDEM Sample #:** AB14629
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	12.2 %		ASTM D888-09(C)
DO	0.98 mg/L		ASTM D888-09(C)
pH (Field)	7.3 SU		EPA 150.2
Specific Conductance (Field)	812 umho/cm		SM2510B
Temperature	23.71 °C		SM2550B(2)
Turbidity (Hach)	141 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 #: A994718	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	140 mg/L	10	EPA 310.2
Chloride	150 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	200 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	100 mg/L	1	SM2540D
Solids, Total (TS)	560 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	470 mg/L	10	SM2540C
Sulfate	25 mg/L	0.25	EPA 300.0
COD	28 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.59 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.01 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.39 mg/L	0.05	EPA 365.1
TKN	1.1 mg/L	0.3	SM4500N(Org)-D
TOC	9.1 mg/L	5	SM5310C

SiteID: LMG-05-0029 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12877

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	21.8 %		ASTM D888-09(C)
DO	2.26 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	752 umho/cm		SM2510B
Temperature	13.75 °C		SM2550B(2)
Turbidity	69.2 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12877	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	118.7 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0029 **Sample Date:** 9/24/2013 **IDEM Sample #:** AB12916
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Pipe discharging upstream of site; discharge is foamy and picture was taken

Lab ID #:	Result	Reporting Limit	Method
% Sat	44.7 %		ASTM D888-09(C)
DO	4.46 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	560 umho/cm		SM2510B
Temperature	15.38 °C		SM2550B(2)
Turbidity	18.7 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12916			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: LMG-05-0029 **Sample Date:** 10/1/2013 **IDEM Sample #:** AB12955
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Crew was preparing to clean sewer line at site.

Lab ID #:	Result	Reporting Limit	Method
% Sat	26.8 %		ASTM D888-09(C)
DO	2.61 mg/L		ASTM D888-09(C)
pH (Field)	7.49 SU		EPA 150.2
Specific Conductance (Field)	651 umho/cm		SM2510B
Temperature	16.58 °C		SM2550B(2)
Turbidity	29.5 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12955			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1119.9 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0029

Sample Date: 10/7/2013

IDEM Sample #: AB14902

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	32.8 %		ASTM D888-09(C)
DO	3.32 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	463 umho/cm		SM2510B
Temperature	14.82 °C		SM2550B(2)
Turbidity (Hach)	9.1 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: A997718	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	110 mg/L	10	EPA 310.2
Chloride	46 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	130 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	3 mg/L	1	SM2540D
Solids, Total (TS)	260 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	28 mg/L	1.3	EPA 300.0
COD	26 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.43 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.14 mg/L	0.05	EPA 365.1
TKN	0.92 mg/L	0.3	SM4500N(Org)-D
TOC	7.7 mg/L	1	SM5310C

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

SiteID: LMG-05-0029

Sample Date: 10/8/2013

IDEM Sample #: AB12994

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	26 %		ASTM D888-09(C)
DO	2.66 mg/L		ASTM D888-09(C)
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	490 umho/cm		SM2510B
Temperature	14.28 °C		SM2550B(2)
Turbidity	43.9 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #: AB12994	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	547.5 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: LMG-05-0030 **USGS Hydrologic Unit:** 040400010505
Stream Name: Tributary of Turkey Creek **County:** Lake
Description: 73rd Avenue **Latitude:** 41 29 7.67421 **Longitude:** -87 20 25.37089
Drainage: 3.973 **Site Number:** 13T-035

SiteID: LMG-05-0030 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12839
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	71 %		ASTM D888-09(C)
DO	6.04 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	846 umho/cm		SM2510B
Temperature	23.38 °C		SM2550B(2)
Turbidity	13.3 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12839	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
E. coli	648.8 MPN/100mL	1	SM9223B

<u>Lab ID #:</u> AB12839a	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	24196 MPN/100mL	10	SM9223B

SiteID: LMG-05-0030 **Sample Date:** 9/11/2013 **IDEM Sample #:** AB14630
Water Flow Type Glide **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Exceptionally turbid based on previous sampling.

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	75.1 %		ASTM D888-09(C)
DO	6.51 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	439 umho/cm		SM2510B
Temperature	22.34 °C		SM2550B(2)
Turbidity (Hach)	408 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 #: A994719	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	67 mg/L	10	EPA 310.2
Chloride	41 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	170 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	150 mg/L	1	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	29 mg/L	0.25	EPA 300.0
COD	15 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.13 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.34 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.37 mg/L	0.05	EPA 365.1
TKN	0.96 mg/L	0.3	SM4500N(Org)-D
TOC	3.2 mg/L	1	SM5310C

SiteID: LMG-05-0030 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12878

Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	82.8 %		ASTM D888-09(C)
DO	8.35 mg/L		ASTM D888-09(C)
pH (Field)	8.12 SU		EPA 150.2
Specific Conductance (Field)	886 umho/cm		SM2510B
Temperature	14.88 °C		SM2550B(2)
Turbidity	11.9 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12878	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1119.9 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0030 Sample Date: 9/24/2013 IDEM Sample #: AB12917
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	84.7 %		ASTM D888-09(C)
DO	8.35 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	786 umho/cm		SM2510B
Temperature	15.96 °C		SM2550B(2)
Turbidity	24.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12917	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1299.7 MPN/100mL	1	SM9223B

SiteID: LMG-05-0030 Sample Date: 10/1/2013 IDEM Sample #: AB12956
 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	78.4 %		ASTM D888-09(C)
DO	7.42 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	953 umho/cm		SM2510B
Temperature	17.88 °C		SM2550B(2)
Turbidity	18.8 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12956	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0030

Sample Date: 10/7/2013

IDEM Sample #: AB14903

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	84.7 %		ASTM D888-09(C)
DO	8.46 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	714 umho/cm		SM2510B
Temperature	15.36 °C		SM2550B(2)
Turbidity (Hach)	16 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 #: A997719	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	110 mg/L	10	EPA 310.2
Chloride	110 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	150 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	9 mg/L	1	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	44 mg/L	1.3	EPA 300.0
COD	17 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.17 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.054 mg/L	0.05	EPA 365.1
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-D
TOC	7.2 mg/L	5	SM5310C

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

SiteID: LMG-05-0030

Sample Date: 10/8/2013

IDEM Sample #: AB12995

Water Flow Type Run

Water Appearance Murky

Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	84.5 %		ASTM D888-09(C)
DO	8.51 mg/L		ASTM D888-09(C)
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	741 umho/cm		SM2510B
Temperature	14.97 °C		SM2550B(2)
Turbidity	17.3 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #: AB12995	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 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	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: LMG-05-0031 **USGS Hydrologic Unit:** 040400010505
Stream Name: Turkey Creek **County:** Lake
Description: Liverpool Road **Latitude:** 41 30 43.24502 **Longitude:** -87 18 24.97031
Drainage: 37.922 **Site Number:** 13T-036

SiteID: LMG-05-0031 **Sample Date:** 9/10/2013 **IDEM Sample #:** AB12840
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	60.7 %		ASTM D888-09(C)
DO	5.23 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	926 umho/cm		SM2510B
Temperature	22.64 °C		SM2550B(2)
Turbidity	8.2 NTU		SM2130B Mod
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> AB12840	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
E. coli	686.7 MPN/100mL	1	SM9223B

<u>Lab ID #:</u> AB12840a	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	24196 MPN/100mL	10	SM9223B

SiteID: LMG-05-0031 **Sample Date:** 9/11/2013 **IDEM Sample #:** AB14631
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	87 %		ASTM D888-09(C)
DO	4.9 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	884 umho/cm		SM2510B
Temperature	22.82 °C		SM2550B(2)
Turbidity (Hach)	7.14 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	14.519 cf/sec		TM D5389-95/D3858
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 #: A994720	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	320 mg/L	50	EPA 310.2
Chloride	64 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	390 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	2 mg/L	1	SM2540D
Solids, Total (TS)	560 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	540 mg/L	10	SM2540C
Sulfate	100 mg/L	2.5	EPA 300.0
COD	16 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.046 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.063 mg/L	0.05	EPA 365.1
TKN	0.67 mg/L	0.3	SM4500N(Org)-D
TOC	4.1 mg/L	1	SM5310C

SiteID: LMG-05-0031 **Sample Date:** 9/17/2013 **IDEM Sample #:** AB12879

Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**

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

Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	73.1 %		ASTM D888-09(C)
DO	7.22 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	868 umho/cm		SM2510B
Temperature	15.88 °C		SM2550B(2)
Turbidity	18.4 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AB12879	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	2419.6 MPN/100mL	1	SM9223B

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

SiteID: LMG-05-0031 Sample Date: 9/24/2013 IDEM Sample #: AB12918
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	63.7 %		ASTM D888-09(C)
DO	6.42 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	806 umho/cm		SM2510B
Temperature	14.98 °C		SM2550B(2)
Turbidity	19.6 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12918	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1986.3 MPN/100mL	1	SM9223B

SiteID: LMG-05-0031 Sample Date: 10/1/2013 IDEM Sample #: AB12957
 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	68.8 %		ASTM D888-09(C)
DO	6.78 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	907 umho/cm		SM2510B
Temperature	15.97 °C		SM2550B(2)
Turbidity	15.4 NTU		SM2130B Mod
Air Temp	4 Lookup		Observation
Sky Conditions	5 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: AB12957	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

SiteID: LMG-05-0031 Sample Date: 10/8/2013 IDEM Sample #: AB12996
 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	64.5 %		ASTM D888-09(C)
DO	6.61 mg/L		ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	734 umho/cm		SM2510B
Temperature	14.15 °C		SM2550B(2)
Turbidity	10.6 NTU		SM2130B Mod
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #: AB12996	Result	Reporting Limit	Method
E. coli	387.3 MPN/100mL	1	SM9223B

Lab ID #: AB12996a	Result	Reporting Limit	Method
Coliforms (Total)	17329 MPN/100mL	10	SM9223B

SiteID: LMG-05-0031 Sample Date: 10/8/2013 IDEM Sample #: AB14904
 Water Flow Type Glide Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	65 %		ASTM D888-09(C)
DO	6.73 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	747 umho/cm		SM2510B
Temperature	13.64 °C		SM2550B(2)
Turbidity (Hach)	11.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Flow	9.2729 cf/sec		TM D5389-95/D3858
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 #: A997721	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	190 mg/L	10	EPA 310.2
Chloride	69 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	250 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	8 mg/L	1	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	60 mg/L	1.3	EPA 300.0
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.12 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.16 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.057 mg/L	0.05	EPA 365.1
TKN	< 0.3 mg/L	0.3	SM4500N(Org)-D
TOC	5.6 mg/L	1	SM5310C

SiteID: LMG-05-0031 **Sample Date:** 11/4/2013 **IDEM Sample #:** AB14965
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	78.9 %		ASTM D888-09(C)
DO	9.1 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	762 umho/cm		SM2510B
Temperature	9 °C		SM2550B(2)
Turbidity (Hach)	14.2 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	27.102 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	4 Lookup		Observation

Lab ID #: AA00652	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	200 mg/L	10	EPA 310.2
Chloride	72 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	280 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	11 mg/L	1	SM2540D
Solids, Total (TS)	480 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/L	10	SM2540C
Sulfate	80 mg/L	2.5	EPA 300.0
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.35 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.054 mg/L	0.05	EPA 365.1
TKN	0.43 mg/L	0.3	SM4500N(Org)-D
TOC	7.4 mg/L	1	SM5310C

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

SiteID: LMG-05-0031 **Sample Date:** 12/9/2013 **IDEM Sample #:** AB15269
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: No flow taken, frozen over.

Lab ID #:	Result	Reporting Limit	Method
% Sat	77.1 %		ASTM D888-09(C)
DO	11.18 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	992 umho/cm		SM2510B
Temperature	0.22 °C		SM2550B(2)
Turbidity (Hach)	12.2 NTU		EPA 180.1
Air Temp	1 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #: AA04585	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	280 mg/L	50	EPA 310.2
Chloride	77 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	430 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	8 mg/L	1	SM2540D
Solids, Total (TS)	590 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	560 mg/L	10	SM2540C
Sulfate	110 mg/L	2.5	EPA 300.0
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.14 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.13 mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 mg/L	0.05	EPA 365.1
TKN	0.68 mg/L	0.3	SM4500N(Org)-D
TOC	4.8 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	