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:** 7/8/2013 **IDEM Sample #:** AB13579

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	52	%		ASTM D888-09(C)
DO	4.29	mg/L		ASTM D888-09(C)
pH (Field)	7.79	SU		EPA 150.2
Specific Conductance (Field)	833	umho/cm		SM2510B
Temperature	24.94	°C		SM2550B(2)
Turbidity (Hach)	13.9	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Flow	105.79	cf/sec		TM D5389-95/D3858
Sky Conditions	8	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988960	<u>Result</u>		Reporting Limit	Method
Alkalinity (as CaCO3)	190	mg/L	10	EPA 310.2
Chloride	87	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	280	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	16	mg/L	1	SM2540D
Solids, Total (TS)	490	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450	mg/L	10	SM2540C
Sulfate	51	mg/L	1.3	EPA 300.0
COD	32	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.12	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.75	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.16	mg/L	0.05	EPA 365.1
TKN	1.3	mg/L	0.3	SM4500N(Org)-D
TOC	9.5	mg/L	1	SM5310C
Lab ID # : AB13579	<u>Result</u>		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	980.4	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 1 of 207

SiteID: LMG-05-0002 Sample Date: 7/22/2013 IDEM Sample #: AB11720 ✓ Algae? Water Flow Type Run Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 39.9 % SM4500-OG % Sat DO 3.14 mg/L SM4500-OG 7.57 SU pH (Field) EPA 150.2 Specific Conductance (Field) 738 umho/cm SM2510B Temperature 27.62 °C SM2550B(2) Turbidity (Hach) 9.58 NTU EPA 180.1 Air Temp 5 Lookup Observation 1 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0002 Sample Date: IDEM Sample #: AB13986 8/5/2013 ✓ Algae? **Water Flow Type** Glide Water Appearance Murky **Water Depth ✓** Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 75.9 % ASTM D888-09(C) % Sat DO 6.57 mg/L ASTM D888-09(C) pH (Field) 7.95 SU EPA 150.2 Specific Conductance (Field) 808 umho/cm SM2510B 22.42 °C Temperature SM2550B(2) Turbidity (Hach) 13.8 NTU EPA 180.1 Air Temp 5 Lookup Observation Flow 75.529 cf/sec TM D5389-95/D3858 Sky Conditions 3 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 2 of 207

Lab ID # : A991467		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		190	mg/L	10	EPA 310.2
Chloride		87	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		300	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		19	mg/L	1	SM2540D
Solids, Total (TS)		500	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		450	mg/L	10	SM2540C
Sulfate		63	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		0.67	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.14	mg/L	0.05	EPA 365.1
TKN		0.44	mg/L	0.3	SM4500N(Org)-D
TOC		7.7	mg/L	1	SM5310C
Lab ID # : AB13986		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		816.4	MPN/100mL	1	SM9223B
SiteID: LMG-05-0002 Water Flow Type Glide Water Flow (cf/sec):	Sample Date: 9/9/2013 Water Appearance Flow Estimated?	Murky ✓ Ac	IDEM Sample : V quatic Life?	#: AB14602 /ater Depth Canopy Closed %	✓ Algae?
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	Method
% 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					
- I		5	Lookup		Observation
Flow		5 -22.661	•		Observation TM D5389-95/D3858

1 Lookup

27 Lookup

1 Lookup

Observation

Observation

Observation

Tuesday, October 22, 2013 Page 3 of 207

Sky Conditions

Wind Direction

Wind Strength

ab ID # : A994684	<u>Result</u>		Reporting Limit	<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

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

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

Sampler Comments:

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% 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	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	108.1	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 4 of 207

SiteID: LMG-05-0002	Sample Date:	9/16/2013		IDEM Sampl	e #: AB12850	
Water Flow Type Run	Wate	r Appearance	Murky		Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flo	w Estimated?	✓ Aq	juatic 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				Lookup		Observation
Sky Conditions				Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
Lab ID # : AB12850			Result		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
000110 (1.010)					=	002202
E. coli SitelD: LMG-05-0002	Sample Date:	9/23/2013	1986.3	MPN/100mL IDEM Sampl	1 e #: AB12889	SM9223B
SiteID: LMG-05-0002	·	9/23/2013 r Appearance	1986.3 Murky			SM9223B ✓ Algae?
SiteID: LMG-05-0002 Water Flow Type Run	Wate		Murky		e#: AB12889	✓ Algae?
SiteID: LMG-05-0002	Wate	r Appearance	Murky	IDEM Sampl	e #: AB12889 Water Depth	✓ Algae?
SiteID: LMG-05-0002 Water Flow Type Run Water Flow (cf/sec):	Wate	r Appearance	Murky	IDEM Sampl	e #: AB12889 Water Depth	✓ Algae?
SiteID: LMG-05-0002 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Wate	r Appearance	Murky	IDEM Sampl	e #: AB12889 Water Depth Canopy Closed %	✓ Algae? 0-20%
SiteID: LMG-05-0002 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #:	Wate	r Appearance	Murky Aq Result	IDEM Sampl	e #: AB12889 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0002 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Wate	r Appearance	Murky Aq Result	IDEM Sampl quatic Life? % mg/L	e #: AB12889 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0002 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Wate	r Appearance	Murky Aq Result 65.4 6.28 7.62	IDEM Sampl quatic Life? % mg/L	e #: AB12889 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0002 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Wate	r Appearance	Murky Aq Result 65.4 6.28 7.62	IDEM Sampl Juatic Life?	e #: AB12889 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0002 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Wate	r Appearance	Murky Result 65.4 6.28 7.62 580 17.26	IDEM Sampl Juatic Life?	e #: AB12889 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0002 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Wate	r Appearance	Murky Result 65.4 6.28 7.62 580 17.26 13.2	JUEM Sampl Juatic Life? % mg/L SU umho/cm °C	e #: AB12889 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0002 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Wate	r Appearance	Murky Result 65.4 6.28 7.62 580 17.26 13.2 3	### Sample Company of the company of	e #: AB12889 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0002 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Wate	r Appearance	Murky Result 65.4 6.28 7.62 580 17.26 13.2 3 1	"We will be something to the second s	e #: AB12889 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0002 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Wate	r Appearance	Murky Result 65.4 6.28 7.62 580 17.26 13.2 3 1	JUEM Sample Juatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12889 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0002 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Wate	r Appearance	Murky Result 65.4 6.28 7.62 580 17.26 13.2 3 1	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12889 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0002 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Wate	r Appearance	Murky Result 65.4 6.28 7.62 580 17.26 13.2 3 1 27 1 Result	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12889 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 5 of 207

	Weather Code Definitions						
_	C	WD		ws	AT		
Sky Co	nditions	1	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			

Tuesday, October 22, 2013 Page 6 of 207

SiteID:LMG-05-0003USGS Hydrologic Unit:040400010509Stream Name:Willow CreekCounty:Porter

Description: Clem Road **Latitude**: 41 35 17.82917 **Longitude**: -87 12 15.90561

Drainage: 8.556 **Site Number:** 13T-002

SitelD: LMG-05-0003 **Sample Date:** 7/8/2013 **IDEM Sample #:** AB13590

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	<u>Method</u>
% Sat	81.8 %		ASTM D888-09(C)
DO	7.65 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	1111 umho/cm		SM2510B
Temperature	18.47 °C		SM2550B(2)
Turbidity (Hach)	10.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: A988962	Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	200 mg/L	50	EPA 310.2
Chloride	170 mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	340 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	9 mg/L	1	SM2540D
Solids, Total (TS)	670 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	580 mg/L	10	SM2540C
Sulfate	64 mg/L	1.3	EPA 300.0
COD	19 mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.05	EPA 353.2
Phosphorus, Total	0.076 mg/L	0.05	EPA 365.1
TKN	0.8 mg/L	0.3	SM4500N(Org)-D
TOC	3.7 mg/L	2	SM5310C
Lab ID # : AB13590	Result	Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 7 of 207

SiteID: LMG-05-0003 Sample Date: 7/22/2013 IDEM Sample #: AB11721 **Water Depth** ✓ Algae? Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 91.2 % SM4500-OG % Sat DO 7.98 mg/L SM4500-OG 7.95 SU pH (Field) EPA 150.2 Specific Conductance (Field) 1013 umho/cm SM2510B Temperature 20.7 °C SM2550B(2) Turbidity (Hach) 5.78 NTU EPA 180.1 Air Temp 5 Lookup Observation 1 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0003 Sample Date: IDEM Sample #: AB13997 8/5/2013 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 91.1 % ASTM D888-09(C) % Sat DO 8.81 mg/L ASTM D888-09(C) pH (Field) 7.84 SU EPA 150.2 Specific Conductance (Field) 1062 umho/cm SM2510B 16.79 °C SM2550B(2) Temperature Turbidity (Hach) 5.78 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 8 of 207

Lab ID # : A991468			Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)			150	mg/L	50	EPA 310.2
Chloride			190	mg/L	2.5	EPA 300.0
Hardness (as CaCO3)			320	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			2	mg/L	1	SM2540D
Solids, Total (TS)			620	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			580	mg/L	10	SM2540C
Sulfate			74	mg/L	2.5	EPA 300.0
COD				mg/L	10	EPA 410.4
Nitrogen, Ammonia			< 0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite				mg/L	0.01	EPA 353.2
Phosphorus, Total			< 0.05	-	0.05	EPA 365.1
TKN			< 0.3	•	0.3	SM4500N(Org)-D
TOC				mg/L	2	SM5310C
Lab ID # : AB13997			<u>Result</u>		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli				14D11/400		0110000
E. COII			2419.6	MPN/100mL	1	SM9223B
	Sample Date:	9/9/2013	2419.6		<u> </u>	SM9223B
SiteID: LMG-05-0003	Sample Date:			IDEM Sample	#: AB14613	
SiteID: LMG-05-0003 Water Flow Type Run	Water	Appearance	Murky	IDEM Sample	#: AB14613 Water Depth	✓ Algae?
SiteID: LMG-05-0003	Water		Murky	IDEM Sample	#: AB14613	✓ Algae?
SiteID: LMG-05-0003 Water Flow Type Run	Water	Appearance	Murky	IDEM Sample	#: AB14613 Water Depth	✓ Algae?
SiteID: LMG-05-0003 Water Flow Type Run Water Flow (cf/sec):	Water	Appearance	Murky	IDEM Sample	#: AB14613 Water Depth	✓ Algae?
SiteID: LMG-05-0003 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water	Appearance	Murky ✓ Aq	IDEM Sample \ uatic Life?	#: AB14613 Water Depth Canopy Closed %	✓ Algae? 0-20%
SiteID: LMG-05-0003 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Murky Aq Result	IDEM Sample \ uatic Life?	#: AB14613 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0003 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Murky Aq Result	IDEM Sample Nuatic Life? % mg/L	#: AB14613 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0003 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Murky Result 73.2 6.87 7.76	IDEM Sample Nuatic Life? % mg/L	#: AB14613 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)

4.19 NTU

5 Lookup

1 Lookup

27 Lookup

1 Lookup

EPA 180.1

Observation

Observation

Observation

Observation

Tuesday, October 22, 2013 Page 9 of 207

Turbidity (Hach)

Sky Conditions

Wind Direction

Wind Strength

Air Temp

Lab ID #: A994685

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
SiteID: LMG-05-0003	Sample Date: 9/9/2013		IDEM Sample	#: AB12822	
Nater Flow Type Run	Water Appearance	Clear	•	Vater Depth	☐ Algae?
	☐ Flow Estimated?	Π Δ α		-	
Vater Flow (cf/sec):	☐ Flow Estimated?	□ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	Method
Lab ID # : % Sat		Result 75.6	%	Reporting Limit	·
		75.6		Reporting Limit	ASTM D888-09(C)
% Sat		75.6	mg/L	Reporting Limit	·
% Sat DO pH (Field)		75.6 7.04 7.86	mg/L	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C)
% Sat DO pH (Field) Specific Conductance (Field)		75.6 7.04 7.86	mg/L SU umho/cm	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
% Sat DO pH (Field)		75.6 7.04 7.86 1171 18.68	mg/L SU umho/cm	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
% Sat DO pH (Field) Specific Conductance (Field) Temperature		75.6 7.04 7.86 1171 18.68 2.3	mg/L SU umho/cm °C NTU	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp		75.6 7.04 7.86 1171 18.68 2.3	mg/L SU umho/cm °C NTU Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity		75.6 7.04 7.86 1171 18.68 2.3 5	mg/L SU umho/cm °C NTU Lookup Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions		75.6 7.04 7.86 1171 18.68 2.3 5 1	mg/L SU umho/cm °C NTU Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction		75.6 7.04 7.86 1171 18.68 2.3 5 1	mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		75.6 7.04 7.86 1171 18.68 2.3 5 1 18 1	mg/L SU umho/cm °C NTU Lookup Lookup Lookup		ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		75.6 7.04 7.86 1171 18.68 2.3 5 1 18 1	mg/L SU umho/cm °C NTU Lookup Lookup Lookup Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Method

Result

Reporting Limit

Method

Tuesday, October 22, 2013 Page 10 of 207

Water Flow Type Run Water Flow (cf/sec):			#: AB12861	
	Water Appearance	Clear V	Vater Depth	☐ Algae?
Samulas Carrier anta	☐ Flow Estimated?	✓ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:		·		
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		74.8 %		ASTM D888-09(C)
DO 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)
		7 NTU		SM2130B Mod
Turbidity				
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
Water Flow Type Run	Water Appearance	Clear V	Vater Depth	
Nater Flow (cf/sec):	☐ Flow Estimated?	A		_
Sampler Comments:		☐ Aquatic Life?	Canopy Closed %	_
Sampler Comments:		☐ Aquatic Life?	Canopy Closed %	_
		Result	Canopy Closed % Reporting Limit	_
Lab ID #:				0-20%
Lab ID #:		Result 77.6 % 8.12 mg/L		0-20%
Lab ID #:		Result 77.6 %		0-20% Method ASTM D888-09(C)
Lab ID #: % Sat DO		Result 77.6 % 8.12 mg/L		0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Lab ID #: % Sat DO pH (Field)		77.6 % 8.12 mg/L 7.78 SU		0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm		0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm 13.17 °C		0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm 13.17 °C 4.8 NTU		0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm 13.17 °C 4.8 NTU 3 Lookup		0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm 13.17 °C 4.8 NTU 3 Lookup 1 Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm 13.17 °C 4.8 NTU 3 Lookup 1 Lookup 27 Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm 13.17 °C 4.8 NTU 3 Lookup 1 Lookup 27 Lookup 1 Lookup	Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Method
DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm 13.17 °C 4.8 NTU 3 Lookup 1 Lookup 27 Lookup 1 Lookup	Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		77.6 % 8.12 mg/L 7.78 SU 1116 umho/cm 13.17 °C 4.8 NTU 3 Lookup 1 Lookup 27 Lookup 1 Lookup	Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Method

Tuesday, October 22, 2013 Page 11 of 207

	Weather Code Definitions							
	C nditions	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				

Tuesday, October 22, 2013 Page 12 of 207

SiteID:LMG-05-0004USGS Hydrologic Unit:040400010509Stream Name:Willow CreekCounty: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**: 7/8/2013 **IDEM Sample #**: AB13601

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	<u>Method</u>
% Sat	82.9	%		ASTM D888-09(C)
DO	7.47	mg/L		ASTM D888-09(C)
pH (Field)	7.85	SU		EPA 150.2
Specific Conductance (Field)	896	umho/cm		SM2510B
Temperature	20.36	°C		SM2550B(2)
Turbidity (Hach)	63.9	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	8	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988963	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	160	mg/L	10	EPA 310.2
Chloride	99	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	270	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	78	mg/L	1	SM2540D
Solids, Total (TS)	550	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400	mg/L	10	SM2540C
Sulfate	45	mg/L	1.3	EPA 300.0
COD	37	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.14	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.5	mg/L	0.05	EPA 353.2
Phosphorus, Total	0.2	mg/L	0.05	EPA 365.1
TKN	0.77	mg/L	0.3	SM4500N(Org)-D
TOC	6.3	mg/L	2	SM5310C
Lab ID # : AB13601	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6	MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 13 of 207

SiteID: LMG-05-0004 Sample Date: 7/22/2013 IDEM Sample #: AB11722 **Water Depth** ✓ Algae? Water Flow Type Run Water Appearance Murky ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 98 % SM4500-OG % Sat DO 8.15 mg/L SM4500-OG 8.06 SU pH (Field) EPA 150.2 Specific Conductance (Field) 800 umho/cm SM2510B Temperature 24.05 °C SM2550B(2) Turbidity (Hach) 8.87 NTU EPA 180.1 Air Temp 5 Lookup Observation 2 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0004 Sample Date: IDEM Sample #: AB14008 8/5/2013 ✓ Algae? **Water Depth Water Flow Type** Glide Water Appearance Clear **✓** Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 87.2 % ASTM D888-09(C) % Sat 8.14 mg/L DO ASTM D888-09(C) 7.84 SU pH (Field) EPA 150.2 Specific Conductance (Field) 822 umho/cm SM2510B 18.48 °C SM2550B(2) Temperature Turbidity (Hach) 4 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 8 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 14 of 207

Lab ID # : A991469			Result		Reporting Limit	Method
Alkalinity (as CaCO3)			140	mg/L	10	EPA 310.2
Chloride			140	mg/L	2.5	EPA 300.0
Hardness (as CaCO3)			230	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			3	mg/L	1	SM2540D
Solids, Total (TS)			510	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			440	mg/L	10	SM2540C
Sulfate			82	mg/L	2.5	EPA 300.0
COD			12	mg/L	10	EPA 410.4
Nitrogen, Ammonia			0.12	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			0.44	mg/L	0.01	EPA 353.2
Phosphorus, Total			0.053	mg/L	0.05	EPA 365.1
TKN			< 0.3	mg/L	0.3	SM4500N(Org)-D
TOC			4.4	mg/L	1	SM5310C
Lab ID # : AB14008			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli			866.4	MPN/100mL	1	SM9223B
SiteID: LMG-05-0004	Sample Date:	9/9/2013		IDEM Sample #	: AB14624	
Water Flow Type Glide	Water A	ppearance	Clear	w	ater Depth	✓ Algae?
Water Flow (cf/sec): Sampler Comments:	☐ Flow I	Estimated?	✓ Ac	juatic Life?	Canopy Closed %	0-20%
Lab ID #:			Result		Reporting Limit	Method
Lab is ".			resur		reporting Limit	wethed
% Sat			90	%		ASTM D888-09(C)
DO			8	mg/L		ASTM D888-09(C)
pH (Field)			7.91			EPA 150.2
Specific Conductance (Field)			575	umho/cm		SM2510B
Temperature			21.18	°C		SM2550B(2)

8.17 NTU

5 Lookup

1 Lookup

27 Lookup

1 Lookup

EPA 180.1

Observation

Observation

Observation

Observation

Turbidity (Hach)

Sky Conditions

Wind Direction

Wind Strength

Air Temp

Tuesday, October 22, 2013 Page 15 of 207

Lab ID # : A994686			Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)			150	mg/L	10	EPA 310.2
Chloride				mg/L	1.3	EPA 300.0
Hardness (as CaCO3)				mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			4	mg/L	1	SM2540D
Solids, Total (TS)			320	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			300	mg/L	10	SM2540C
Sulfate			44	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			0.33	mg/L	0.01	EPA 353.2
Phosphorus, Total			0.084	mg/L	0.05	EPA 365.1
TKN			0.54	mg/L	0.3	SM4500N(Org)-D
TOC			3.3	mg/L	1	SM5310C
SiteID: LMG-05-0004	Sample Date:	9/9/2013		IDEM Sample #:	AB12833	
Water Flow Type Run	Water	Appearance	Clear	Wa	ter Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow	v Estimated?	✓ Ac	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:			,			
·						
Lab ID #:			<u>Result</u>		Reporting Limit	<u>Method</u>
% 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			<u>Result</u>		Reporting Limit	<u>Method</u>
E. coli			980.4	MPN/100mL	1	SM9223B
Lab ID # : AB12833a			Result		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 24196	MPN/100mL	24196	SM9223B

Tuesday, October 22, 2013 Page 16 of 207

SiteID: LMG-05-0004	Sample Date: 9/16/2013		IDEM Sample	e #: AB12872	
Nater Flow Type Run	Water Appearance	Clear		Water Depth	✓ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aqı	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID#:		Result		Reporting Limit	<u>Method</u>
% 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			Lookup		Observation
Wind Strength		1	Lookup		Observation
Lab ID # : AB12872		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
Colliditis (Total)					
E. coli SiteID: LMG-05-0004	Sample Date: 9/23/2013	1299.7	MPN/100mL	1	SM9223B
E. coli SitelD: LMG-05-0004	Sample Date: 9/23/2013 Water Appearance	1299.7	MPN/100mL	1	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0004 Water Flow Type Run	•	1299.7 Clear	MPN/100mL	1 e#: AB12911	✓ Algae?
SiteID: LMG-05-0004 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	1299.7 Clear	MPN/100mL	1 e #: AB12911 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0004 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	1299.7 Clear	MPN/100mL	1 e #: AB12911 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0004 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	1299.7 Clear	MPN/100mL IDEM Sample Juatic Life?	e #: AB12911 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0004 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Clear Aqu	MPN/100mL IDEM Sample Juatic Life?	e #: AB12911 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0004 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Clear Aqu	MPN/100mL IDEM Sample uatic Life? % mg/L	e #: AB12911 Water Depth Canopy Closed %	ASTM D888-09(C)
E. coli SiteID: LMG-05-0004 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Clear Aqu Result 86.6 8.8 7.87	MPN/100mL IDEM Sample uatic Life? % mg/L	e #: AB12911 Water Depth Canopy Closed %	ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0004 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aqu Result 86.6 8.8 7.87	MPN/100mL IDEM Sample Justic Life?	e #: AB12911 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SitelD: LMG-05-0004 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Result 86.6 8.8 7.87 882	MPN/100mL IDEM Sample Juatic Life?	e #: AB12911 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0004 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Result 86.6 8.8 7.87 882 14.51 4.9	MPN/100mL IDEM Sample Juatic Life?	e #: AB12911 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0004 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Result 86.6 8.8 7.87 882 14.51 4.9 3	MPN/100mL IDEM Sample Jatic Life?	e #: AB12911 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0004 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Clear Result 86.6 8.8 7.87 882 14.51 4.9 3 1	MPN/100mL IDEM Sample Juatic Life?	e #: AB12911 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SitelD: LMG-05-0004 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Clear Result 86.6 8.8 7.87 882 14.51 4.9 3 1 27	MPN/100mL IDEM Sample Juatic Life?	e #: AB12911 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0004 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Clear Result 86.6 8.8 7.87 882 14.51 4.9 3 1 27	MPN/100mL IDEM Sample Juatic Life?	e #: AB12911 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0004 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Clear Result 86.6 8.8 7.87 882 14.51 4.9 3 1 27 1 Result	MPN/100mL IDEM Sample Juatic Life?	e #: AB12911 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 17 of 207

	Weather Code Definitions									
S	C		WD	WS	AT					
Sky Co	nditions	1	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						

Tuesday, October 22, 2013 Page 18 of 207

SiteID:LMG-05-0006USGS Hydrologic Unit:040400010508Stream Name:Deep RiverCounty:Lake

Description: 29th Avenue **Latitude:** 41 33 56.09423 **Longitude:** -87 17 39.74435

Drainage: 150.342 **Site Number:** 13T-005

SitelD: LMG-05-0006 **Sample Date:** 7/8/2013 **IDEM Sample #:** AB13609

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	<u>Method</u>
% Sat	84.9	%		ASTM D888-09(C)
DO	7.15	mg/L		ASTM D888-09(C)
pH (Field)	7.9	SU		EPA 150.2
Specific Conductance (Field)	681	umho/cm		SM2510B
Temperature	24.12	°C		SM2550B(2)
Turbidity (Hach)	14.7	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	8	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988964	<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	180	mg/L	10	EPA 310.2
Chloride	65	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	250	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	15	mg/L	1	SM2540D
Solids, Total (TS)	410	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360	mg/L	10	SM2540C
Sulfate	38	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	0.46	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	8.7	mg/L	1	SM5310C
Lab ID # : AB13609	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	275.5	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 19 of 207

SiteID: LMG-05-0006 Sample Date: 7/22/2013 IDEM Sample #: AB11723 ✓ Algae? Water Flow Type Run Water Appearance Water Depth Brown ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 71.7 % SM4500-OG % Sat DO 3.31 mg/L SM4500-OG 7.93 SU pH (Field) EPA 150.2 Specific Conductance (Field) 544 umho/cm SM2510B Temperature 30.11 °C SM2550B(2) Turbidity (Hach) 10.1 NTU EPA 180.1 Air Temp 6 Lookup Observation 3 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0006 Sample Date: IDEM Sample #: AB14016 8/5/2013 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Murky ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 90.3 % ASTM D888-09(C) % Sat DO 7.78 mg/L ASTM D888-09(C) pH (Field) 8.05 SU EPA 150.2 Specific Conductance (Field) 739 umho/cm SM2510B 22.72 °C Temperature SM2550B(2) Turbidity (Hach) 15.4 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 8 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 20 of 207

Lab ID #: A991470			Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)			200	mg/L	10	EPA 310.2
Chloride			69	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			300	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			18	mg/L	1	SM2540D
Solids, Total (TS)			470	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			390	mg/L	10	SM2540C
Sulfate			53	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			0.22	mg/L	0.01	EPA 353.2
Phosphorus, Total			0.13	mg/L	0.05	EPA 365.1
TKN			0.7	mg/L	0.3	SM4500N(Org)-D
TOC			7.4	mg/L	1	SM5310C
Lab ID # : AB14016			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli			178.5	MPN/100mL	1	SM9223B
SiteID: MG-05-0006	Sample Date:	9/9/2013		IDFM Sample	#· AB14632	
SiteID: LMG-05-0006 Water Flow Type Glide	Sample Date:	9/9/2013 Appearance	Murky	IDEM Sample		✓ Algae?
	Water	9/9/2013 Appearance v Estimated?		•	#: AB14632 Vater Depth Canopy Closed %	✓ Algae? 0-20%
Water Flow Type Glide Water Flow (cf/sec):	Water	Appearance		V	Vater Depth	_
Water Flow Type Glide Water Flow (cf/sec): Sampler Comments:	Water	Appearance	✓ Ac	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Result 84.7	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Result 84.7	V quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Result 84.7 7.08 8.01	V quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)

9.23 NTU

5 Lookup

1 Lookup

27 Lookup

1 Lookup

EPA 180.1

Observation

Observation

Observation

Observation

Tuesday, October 22, 2013 Page 21 of 207

Turbidity (Hach)

Sky Conditions

Wind Direction

Wind Strength

Air Temp

Lab ID # : A994687		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		240	mg/L	20	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			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
SiteID: LMG-05-0006	Sample Date: 9/9/2013		IDEM Sample	e #: AB12841	
Water Flow Type Run	Water Appearance	Clear	•	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	✓ Ac	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
Lab ID #:		Result 86.4	%	Reporting Limit	Method ASTM D888-09(C)
		86.4	% mg/L	Reporting Limit	
% Sat		86.4	mg/L	Reporting Limit	ASTM D888-09(C)
% Sat DO		86.4 7.17 8.03	mg/L	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C)
% Sat DO pH (Field)		86.4 7.17 8.03	mg/L SU umho/cm	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
% Sat DO pH (Field) Specific Conductance (Field)		86.4 7.17 8.03 766 24.68	mg/L SU umho/cm	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
% Sat DO pH (Field) Specific Conductance (Field) Temperature		86.4 7.17 8.03 766 24.68 7.5	mg/L SU umho/cm °C	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity		86.4 7.17 8.03 766 24.68 7.5	mg/L SU umho/cm °C NTU	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp		86.4 7.17 8.03 766 24.68 7.5 5	mg/L SU umho/cm °C NTU Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions		86.4 7.17 8.03 766 24.68 7.5 5	mg/L SU umho/cm °C NTU Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction		86.4 7.17 8.03 766 24.68 7.5 5	mg/L SU umho/cm °C NTU Lookup Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		86.4 7.17 8.03 766 24.68 7.5 5 1 18 1	mg/L SU umho/cm °C NTU Lookup Lookup		ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 22 of 207

SiteID: LMG-05-0006	Sample Date: 9/16/2013	IL.	DEM Sample	e #: AB12880	
Water Flow Type Glide	Water Appearance	Green		Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aqua	atic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		89.1 %	6		ASTM D888-09(C)
DO		8.16 m	ng/L		ASTM D888-09(C)
pH (Field)		8.04 S	SU		EPA 150.2
Specific Conductance (Field)		754 u	mho/cm		SM2510B
Temperature		19.57 °C	С		SM2550B(2)
Turbidity		9.4 N	ITU		SM2130B Mod
Air Temp		4 L	ookup		Observation
Sky Conditions		3 L	ookup		Observation
Wind Direction		0 L	ookup		Observation
Wind Strength		1 L	ookup		Observation
Lab ID # : AB12880		Result		Reporting Limit	Method
California (Tatal)		> 2419.6 M	/IPN/100mL	2419.6	SM9223B
Coliforms (Total)		/ Z+10.0 W			
E. coli SiteID: LMG-05-0006	Sample Date: 9/23/2013	27.2 M	MPN/100mL DEM Sample	1	SM9223B
E. coli SiteID: LMG-05-0006	Sample Date: 9/23/2013 Water Appearance	27.2 M	MPN/100mL	1	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0006 Water Flow Type Run	•	27.2 M	MPN/100mL	1 e#: AB12919	✓ Algae?
E. coli SiteID: LMG-05-0006 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	27.2 M	DEM Sample	1 e #: AB12919 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0006 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	27.2 M	DEM Sample	1 e #: AB12919 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	27.2 M II Murky Aqua	DEM Sample	1 e #: AB12919 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	27.2 M III Murky Aqua	DEM Sample atic Life?	1 e #: AB12919 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	27.2 M IE Murky Aqua Result 89.8 %	DEM Sample atic Life?	1 e #: AB12919 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	27.2 M IE Murky Aqua Result 89.8 % 8.38 m 7.82 S	DEM Sample atic Life?	1 e #: AB12919 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	27.2 M IE Murky Aqua Result 89.8 % 8.38 m 7.82 S	DEM Sample atic Life? 6 ng/L BU mho/cm	1 e #: AB12919 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	27.2 M III Murky Aqua Result 89.8 % 8.38 m 7.82 S 508 u	DEM Sample atic Life? 6 ng/L SU mho/cm C	1 e #: AB12919 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	27.2 M IE Murky Aqua Result 89.8 % 8.38 m 7.82 S 508 u 18.6 % 12.1 N	DEM Sample atic Life? 6 ng/L SU mho/cm C	1 e #: AB12919 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: ** Sat* DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	27.2 M IE Murky Aqua Result 89.8 % 8.38 m 7.82 S 508 u 18.6 % 12.1 N 3 L	DEM Sample atic Life? 6 ng/L BU mho/cm C ITU	1 e #: AB12919 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Bat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	27.2 M IE Murky Aqua Result 89.8 % 8.38 m 7.82 S 508 u 18.6 % 12.1 N 3 L 1 L	DEM Sample atic Life? 6 ng/L SU mho/cm C ITU ookup	1 e #: AB12919 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SitelD: LMG-05-0006 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: ** Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	27.2 M IE Murky Aqua Result 89.8 % 8.38 m 7.82 S 508 u 18.6 % 12.1 N 3 L 1 L 27 L	DEM Sample atic Life? Geng/L BU mho/cm C ITU ookup ookup	1 e #: AB12919 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0006 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	27.2 M IE Murky Aqua Result 89.8 % 8.38 m 7.82 S 508 u 18.6 % 12.1 N 3 L 1 L 27 L	DEM Sample atic Life? 6 ng/L BU mho/cm C ITU ookup ookup ookup	1 e #: AB12919 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0006 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	27.2 M IE Murky Aqua Result 89.8 % 8.38 m 7.82 S 508 u 18.6 % 12.1 N 3 L 1 L 27 L 1 L	DEM Sample atic Life? 6 ng/L SU mho/cm C ITU ookup ookup ookup	e #: AB12919 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 23 of 207

	Weather Code Definitions									
S	C	WD		WS	AT					
Sky Co	nditions	1	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						

Tuesday, October 22, 2013 Page 24 of 207

SiteID:LMG-05-0007USGS Hydrologic Unit:040400010508Stream Name:Deep RiverCounty: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:** 7/8/2013 **IDEM Sample #:** AB13610

Water Flow Type Glide Water Appearance Murky Water Depth Algae?

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

Sampler Comments:

Lab ID #:	Result		Reporting Limit	Method
% Sat	72.2	%		ASTM D888-09(C)
DO	6.03	mg/L		ASTM D888-09(C)
pH (Field)	7.82	SU		EPA 150.2
Specific Conductance (Field)	663	umho/cm		SM2510B
Temperature	24.36	°C		SM2550B(2)
Turbidity (Hach)	12.5	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Flow	49.002	cf/sec		TM D5389-95/D3858
Sky Conditions	8	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988965	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	180	mg/L	10	EPA 310.2
Chloride	68	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	250	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	11	mg/L	1	SM2540D
Solids, Total (TS)	380	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380	mg/L	10	SM2540C
Sulfate	40	mg/L	1.3	EPA 300.0
COD	32	mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.42	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.12	mg/L	0.05	EPA 365.1
TKN	1.2	mg/L	0.3	SM4500N(Org)-D
TOC	8.6	mg/L	1	SM5310C
Lab ID # : AB13610	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	195.6	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 25 of 207

SiteID: LMG-05-0007 Sample Date: 7/22/2013 IDEM Sample #: AB11724 ✓ Algae? Water Flow Type Pool Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 87.4 % SM4500-OG % Sat DO 6.43 mg/L SM4500-OG 7.92 SU pH (Field) EPA 150.2 Specific Conductance (Field) 545 umho/cm SM2510B Temperature 30.08 °C SM2550B(2) Turbidity (Hach) 9.46 NTU EPA 180.1 Air Temp 5 Lookup Observation 1 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0007 Sample Date: IDEM Sample #: AB14017 8/5/2013 ✓ Algae? **Water Depth Water Flow Type** Glide Water Appearance Murky ✓ Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 92.6 % ASTM D888-09(C) % Sat DO 7.95 mg/L ASTM D888-09(C) pH (Field) 8.11 SU EPA 150.2 Specific Conductance (Field) 739 umho/cm SM2510B 22.87 °C Temperature SM2550B(2) Turbidity (Hach) 12.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Flow 68.499 cf/sec TM D5389-95/D3858 Sky Conditions 4 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 26 of 207

Lab ID # : A991471		<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		200	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		23	mg/L	1	SM2540D
Solids, Total (TS)		480	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate		53	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		0.23	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.12	-	0.05	EPA 365.1
TKN		0.62	-	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB14017		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		146.7	MPN/100mL	1	SM9223B
SiteID: LMG-05-0007 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear	IDEM Sample	#: AB12842 Vater Depth	✓ Algae?
Nater Flow Type Run	Water Appearance	Clear	v	Vater Depth	_
	•	Clear	•		
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	v	Vater Depth	_
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	V uatic Life?	Vater Depth Canopy Closed %	0-20%
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Clear Aq Result	vuatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Aq Result	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Clear Aq Result 81.9 6.75 8.03	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aq Result 81.9 6.75 8.03	watic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Clear Aq Result 81.9 6.75 8.03 765 25.04	watic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Clear Result 81.9 6.75 8.03 765 25.04 5.4	watic Life? % mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Clear Result 81.9 6.75 8.03 765 25.04 5.4 5	wuatic Life? % mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Clear Result 81.9 6.75 8.03 765 25.04 5.4 5	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 81.9 6.75 8.03 765 25.04 5.4 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Sat** DO** pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 81.9 6.75 8.03 765 25.04 5.4 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Clear Aq Result 81.9 6.75 8.03 765 25.04 5.4 5 1 18 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 27 of 207

SiteID: LMG-05-0007	Sample Date: 9/9/2013	I	DEM Sample	e#: AB14633	
Water Flow Type Glide	Water Appearance	Murky		Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aqu	atic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		74.9	%		ASTM D888-09(C)
DO		6.25 r	mg/L		ASTM D888-09(C)
pH (Field)		7.98	SU		EPA 150.2
Specific Conductance (Field)		739 ι	umho/cm		SM2510B
Temperature		24.4 °	°C		SM2550B(2)
Turbidity (Hach)		7.01	NTU		EPA 180.1
Air Temp		6 L	Lookup		Observation
Flow		21.916	cf/sec		TM D5389-95/D3858
Sky Conditions		1 L	Lookup		Observation
Wind Direction		27 L	Lookup		Observation
Wind Strength		2 L	Lookup		Observation
Lab ID # : A994688		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		240 r	mg/L	20	EPA 310.2
Chloride		66 r	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		280 r	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		7 r	mg/L	1	SM2540D
Solids, Total (TS)		430 r	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		410 r	mg/L	10	SM2540C
Sulfate		51 r	mg/L	1.3	EPA 300.0
COD		25 r	mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1 r	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.055 r	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.11 r	mg/L	0.05	EPA 365.1
TKN		0.8 r	mg/L	0.3	SM4500N(Org)-D
TOC		6.4 r	mg/L	1	SM5310C

Tuesday, October 22, 2013 Page 28 of 207

SiteID: LMG-05-0007	Sample Date: 9/16/2013	IDE	EM Sample	#: AB12881	
Water Flow Type Pool	Water Appearance	Murky		Water Depth	✓ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquat	ic 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 um	ho/cm		SM2510B
Temperature		19.55 °C			SM2550B(2)
Turbidity		7.5 NT	U		SM2130B Mod
Air Temp		4 Loc	okup		Observation
Sky Conditions		3 Loc	okup		Observation
Wind Direction		0 Loc	okup		Observation
Wind Strength		1 Loc	okup		Observation
Lab ID # : AB12881		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6 MP	N/100mL	2419.6	SM9223B
Collionnis (Total)		2 Z T 10.0 IVII			
E. coli SiteID: LMG-05-0007	Sample Date: 9/23/2013	35.9 MP	PN/100mL	1	SM9223B
E. coli SiteID: LMG-05-0007	Sample Date: 9/23/2013 Water Appearance	35.9 MP	PN/100mL	1	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0007 Nater Flow Type Pool	•	35.9 MF	PN/100mL	1 e#: AB12920	✓ Algae?
E. coli SitelD: LMG-05-0007	Water Appearance	35.9 MF	PN/100mL	1 e #: AB12920 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0007 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments:	Water Appearance	35.9 MF	PN/100mL	1 e #: AB12920 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments:	Water Appearance	35.9 MF IDE Clear Aquat	PN/100mL	1 #: AB12920 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	35.9 MP IDE Clear Aquat Result	EM Sample	1 #: AB12920 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	35.9 MP IDE Clear Aquat Result	EM Sample	1 #: AB12920 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	35.9 MP IDE Clear Aquat Result 65 % 6.03 mg	EM Sample	1 #: AB12920 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	35.9 MP IDE Clear Aquat Result 65 % 6.03 mg 7.68 SU	EM Sample	1 #: AB12920 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	35.9 MP IDE Clear Aquat Result 65 % 6.03 mg 7.68 SU 507 um	EM Sample ic Life?	1 #: AB12920 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	35.9 MP IDE Clear Aquat Result 65 % 6.03 mg 7.68 SU 507 um 18.89 °C	EM Sample ic Life? //L ho/cm	1 #: AB12920 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0007 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	35.9 MP IDE Clear Aquat 65 % 6.03 mg 7.68 SU 507 um 18.89 °C 9.3 NT	EM Sample ic Life? //L ho/cm U okup	1 #: AB12920 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: ** Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	35.9 MP IDE Clear Aquat 65 % 6.03 mg 7.68 SU 507 um 18.89 °C 9.3 NT 3 Loc	EM Sample ic Life? /L ho/cm U okup	1 #: AB12920 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SitelD: LMG-05-0007 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: ** Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	35.9 MP IDE Clear Aquat 65 % 6.03 mg 7.68 SU 507 um 18.89 °C 9.3 NT 3 Loc 1 Loc	ic Life? /L ho/cm U okup okup okup	1 #: AB12920 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0007 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	35.9 MP IDE Clear Aquat 65 % 6.03 mg 7.68 SU 507 um 18.89 °C 9.3 NT 3 Loc 1 Loc 27 Loc	ic Life? /L ho/cm U okup okup okup	1 #: AB12920 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0007 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	35.9 MP IDE Clear Aquat 65 % 6.03 mg 7.68 SU 507 um 18.89 °C 9.3 NT 3 Loc 1 Loc 27 Loc 1 Loc	EM Sample ic Life? /L ho/cm U okup okup okup	#: AB12920 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 29 of 207

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				

Tuesday, October 22, 2013 Page 30 of 207

SiteID:LMG-05-0008USGS Hydrologic Unit:040400010508Stream Name:Tributary of Deep RiverCounty: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**: 7/8/2013 **IDEM Sample #**: AB13611

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	<u>Method</u>
% Sat	71	%		ASTM D888-09(C)
DO	6.39	mg/L		ASTM D888-09(C)
pH (Field)	7.71	SU		EPA 150.2
Specific Conductance (Field)	866	umho/cm		SM2510B
Temperature	20.95	°C		SM2550B(2)
Turbidity (Hach)	9.08	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	8	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988966	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	210	mg/L	50	EPA 310.2
Chloride	80	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	360	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	2	mg/L	1	SM2540D
Solids, Total (TS)	520	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450	mg/L	10	SM2540C
Sulfate	53	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	0.76	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.15	mg/L	0.05	EPA 365.1
TKN	0.8	mg/L	0.3	SM4500N(Org)-D
TOC	6.1	mg/L	1	SM5310C
Lab ID # : AB13611	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1553.1	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 31 of 207

SiteID: LMG-05-0008 Sample Date: 7/22/2013 IDEM Sample #: AB11725 ☐ Algae? Water Flow Type Pool Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Hydrolab Turbidity = 85.6 Lab ID #: Result Reporting Limit **Method** 25.1 % SM4500-OG % Sat DO 2.03 mg/L SM4500-OG 7.46 SU pH (Field) EPA 150.2 Specific Conductance (Field) 808 umho/cm SM2510B Temperature 22.8 °C SM2550B(2) Turbidity (Hach) 7.34 NTU EPA 180.1 Air Temp 5 Lookup Observation 1 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: LMG-05-0008 Sample Date: IDEM Sample #: AB14018 8/5/2013 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 80 % ASTM D888-09(C) % Sat DO 7.49 mg/L ASTM D888-09(C) pH (Field) 7.68 SU EPA 150.2 Specific Conductance (Field) 794 umho/cm SM2510B 18.49 °C SM2550B(2) Temperature Turbidity (Hach) 7.42 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 8 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 32 of 207

Lab ID # : A991473		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		190	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		9	mg/L	1	SM2540D
Solids, Total (TS)		540	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		460	mg/L	10	SM2540C
Sulfate		61	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		0.59	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.1	mg/L	0.05	EPA 365.1
TKN		< 0.3	mg/L	0.3	SM4500N(Org)-D
TOC		5.1	mg/L	1	SM5310C
Lab ID # : AB14018		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
00010 (1010)					
E. coli		547.5	MPN/100mL	1	SM9223B
	Sample Date: 9/9/2013 Water Appearance	547.5 Murky	IDEM Sample #		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0008 Water Flow Type Glide	Water Appearance	Murky	IDEM Sample ≇ W	#: AB14634 later Depth	✓ Algae?
E. coli SiteID: LMG-05-0008	•	Murky	IDEM Sample #	<i>t</i> : AB14634	✓ Algae?
E. coli SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec):	Water Appearance	Murky	IDEM Sample ≇ W	#: AB14634 later Depth	✓ Algae?
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments:	Water Appearance	Murky	IDEM Sample # W quatic Life?	t: AB14634 ater Depth Canopy Closed %	✓ Algae? 0-20%
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Murky Acc Result 47.4 4.06	IDEM Sample # Waquatic Life? % mg/L	t: AB14634 ater Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Murky Acc Result	IDEM Sample # Waquatic Life? % mg/L	t: AB14634 ater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Murky Ac Result 47.4 4.06 7.66	IDEM Sample # Waquatic Life? % mg/L	t: AB14634 ater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Murky Ac Result 47.4 4.06 7.66	IDEM Sample # Wquatic Life? % mg/L SU umho/cm	t: AB14634 ater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Murky Result 47.4 4.06 7.66 957 20.11	IDEM Sample # Wquatic Life? % mg/L SU umho/cm	t: AB14634 ater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Murky Result 47.4 4.06 7.66 957 20.11 11.3	IDEM Sample # W quatic Life? % mg/L SU umho/cm °C	t: AB14634 ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Murky Result 47.4 4.06 7.66 957 20.11 11.3 5	IDEM Sample # Wquatic Life? % mg/L SU umho/cm °C NTU	t: AB14634 ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: LMG-05-0008 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Murky Result 47.4 4.06 7.66 957 20.11 11.3 5	IDEM Sample # Waquatic Life? % mg/L SU umho/cm °C NTU Lookup	t: AB14634 ater Depth Canopy Closed %	■ Algae? 0-20% Method

1 Lookup

Observation

Tuesday, October 22, 2013 Page 33 of 207

Wind Strength

Lab ID #: A994689

Alkalinity (as CaCO3)		310 ו	mg/L	20	EPA 310.2
Chloride		100 ו	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		420 ı	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		9 1	mg/L	1	SM2540D
Solids, Total (TS)		580 ı	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		530 ו	mg/L	10	SM2540C
Sulfate		68 ı	mg/L	1.3	EPA 300.0
COD		20 ו	mg/L	10	EPA 410.4
Nitrogen, Ammonia		0.19 ו	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.52 ı	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.12 ı	mg/L	0.05	EPA 365.1
TKN		0.63 ו	mg/L	0.3	SM4500N(Org)-D
TOC		4 1	mg/L	1	SM5310C
SiteID: LMG-05-0008	Sample Date: 9/9/2013		IDEM Sample #		
Nater Flow Type Stagnant	Water Appearance	Murky	W	ater Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	∐ Aqւ	uatic Life?	Canopy Closed %	0-20%
Nater Flow (cf/sec): Sampler Comments:	☐ Flow Estimated?	∐ Aqı	uatic Life?	Canopy Closed %	0-20%
	☐ Flow Estimated?		uatic Life?	Canopy Closed % Reporting Limit	0-20%
Sampler Comments: Lab ID #:	☐ Flow Estimated?	Result			<u>Method</u>
Sampler Comments: Lab ID #: % Sat	☐ Flow Estimated?	Result	%		Method ASTM D888-09(C)
Sampler Comments: Lab ID #: % Sat DO	☐ Flow Estimated?	35.4 ° 3.17 i	% mg/L		Method ASTM D888-09(C) ASTM D888-09(C)
Campler Comments: Lab ID #: % Sat DO pH (Field)	☐ Flow Estimated?	35.4 ° 3.17 ° 7.63 ° 3	% mg/L SU		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	☐ Flow Estimated?	35.4 (3.17) 3.17) 7.63 (3.989)	% mg/L SU umho/cm		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	☐ Flow Estimated?	35.4 (3.17) 3.17) 7.63 (3.18) 989 (20.68)	% mg/L SU umho/cm °C		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	☐ Flow Estimated?	35.4 (3.17) (7.63) (989) (20.68) (23.6)	% mg/L SU umho/cm °C NTU		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	☐ Flow Estimated?	35.4 (3.17) 7.63 (989) 20.68 (23.6) 5	% mg/L SU umho/cm °C NTU Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Sampler Comments: "" "" "" "" "" "" "" "" ""	☐ Flow Estimated?	35.4 (3.17) 7.63 (3.989) 20.68 (3.23.6) 5)	% mg/L SU umho/cm °C NTU Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Sampler Comments: ### % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	☐ Flow Estimated?	35.4 (3.17) 3.17) 7.63 (3.98) 20.68 (2.3.6) 5 (1.1) 18 (1.1)	% mg/L SU umho/cm °C NTU Lookup Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Sampler Comments: ##: ##: ##: ##: ##: ##: ##: ##:	☐ Flow Estimated?	35.4 (3.17) 3.17) 7.63 (3.98) 20.68 (2.3.6) 5 (1.1) 18 (1.1)	% mg/L SU umho/cm °C NTU Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Sampler Comments: We Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	☐ Flow Estimated?	35.4 (3.17) 3.17) 7.63 (3.98) 20.68 (2.3.6) 5 (1.1) 18 (1.1)	% mg/L SU umho/cm °C NTU Lookup Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Sampler Comments: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	☐ Flow Estimated?	Result 35.4 (3.17 (7.63 (989 (20.68 (23.6 (1 (18 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1	% mg/L SU umho/cm °C NTU Lookup Lookup	Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Result

Reporting Limit

Method

Tuesday, October 22, 2013 Page 34 of 207

Sample Date:	9/16/2013		IDEM Sampl	e # : AB12882	
Water	Appearance	Clear		Water Depth	✓ Algae?
Flov	v Estimated?	□ Aq	uatic Life?	Canopy Closed %	0-20%
		·			
		Result		Reporting Limit	Method
		69.7	%		ASTM D888-09(C)
		6.99	mg/L		ASTM D888-09(C)
		7.74	SU		EPA 150.2
		1000	umho/cm		SM2510B
		15.19	°C		SM2550B(2)
		4.9	NTU		SM2130B Mod
		4	Lookup		Observation
			•		Observation
			•		Observation
					Observation
			'		
		<u>Result</u>		Reporting Limit	Method
		> 2419.6	MPN/100mL	2419.6	SM9223B
		686.7	MPN/100mL	1	SM9223B
	0, = 0, = 0			e #: AB12921	
Water	Appearance	Clear		e #: AB12921 Water Depth	✓ Algae?
	Appearance v Estimated?		uatic Life?		_
				Water Depth	_
				Water Depth	_
		☐ Aq	uatic Life?	Water Depth Canopy Closed %	0-20%
		Result	uatic Life?	Water Depth Canopy Closed %	0-20% <u>Method</u>
		Result	yuatic Life? % mg/L	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
		Result 73 7.4 7.66	yuatic Life? % mg/L	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
		Result 73 7.4 7.66	% mg/L SU umho/cm	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
		Result 73 7.4 7.66 788 14.66	% mg/L SU umho/cm	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
		Result 73 7.4 7.66 788 14.66 5.9	% mg/L SU umho/cm °C NTU	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
		Result 73 7.4 7.66 788 14.66 5.9 3	% mg/L SU umho/cm °C NTU Lookup	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
		Result 73 7.4 7.66 788 14.66 5.9 3 1	% mg/L SU umho/cm °C NTU Lookup Lookup	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
		Result 73 7.4 7.66 788 14.66 5.9 3 1	% mg/L SU umho/cm °C NTU Lookup	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
		Result 73 7.4 7.66 788 14.66 5.9 3 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
		Result 73 7.4 7.66 788 14.66 5.9 3 1 27 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation
		Water Appearance Flow Estimated?	Result	Result	Flow Estimated?

Tuesday, October 22, 2013 Page 35 of 207

Weather Code Definitions								
SC WD WS AT								
Sky Co	nditions	1	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				

Tuesday, October 22, 2013 Page 36 of 207

 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:** 7/8/2013 **IDEM Sample #:** AB13612

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	<u>Method</u>
% Sat	120.8	%		ASTM D888-09(C)
DO	9.94	mg/L		ASTM D888-09(C)
pH (Field)	8.43	SU		EPA 150.2
Specific Conductance (Field)	654	umho/cm		SM2510B
Temperature	25.09	°C		SM2550B(2)
Turbidity (Hach)	16.5	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	2	Lookup		Observation
Lab ID # : A988967	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	170	mg/L	10	EPA 310.2
Chloride	62	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	250	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	25	mg/L	1	SM2540D
Solids, Total (TS)	400	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330	mg/L	10	SM2540C
Sulfate	40	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	0.17	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.11	mg/L	0.05	EPA 365.1
TKN	1.8	mg/L	0.3	SM4500N(Org)-D
TOC	8.8	mg/L	1	SM5310C
Lab ID # : AB13612	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6	MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 37 of 207

SiteID: LMG030-0008 Sample Date: 7/23/2013 IDEM Sample #: AB11726 ✓ Algae? Water Flow Type Riffle Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% Oakton pH meter probe was not in KCl solution. believe it may not be reading right. meter would not calibrate in **Sampler Comments:** field. Did not recognize pH 10 Lab ID #: **Reporting Limit** Result **Method** % Sat 51 % SM4500-OG DO 3.89 mg/L SM4500-OG pH (Field) 7.74 SU EPA 150.2 Specific Conductance (Field) 571 umho/cm SM2510B Temperature 27.97 °C SM2550B(2) Turbidity (Hach) 12.3 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG030-0008 Sample Date: 8/5/2013 IDEM Sample #: AB14019 ✓ Algae? Water Flow Type Water Appearance Murky Water Depth Run ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** % Sat 122.1 % ASTM D888-09(C) DO 10.27 mg/L ASTM D888-09(C) 8.37 SU pH (Field) EPA 150.2 Specific Conductance (Field) 702 umho/cm SM2510B 23.9 °C Temperature SM2550B(2) 13.5 NTU Turbidity (Hach) EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 4 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 38 of 207

Lab ID # : A991474		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		190	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1	-	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB14019		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		461.1	MPN/100mL	1	SM9223B
SiteID: LMG030-0008 Nater Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Murky		Vater Depth	☐ Algae?
	·		_		
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	v quatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 100.6 8.19	v quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 100.6 8.19 8.44	yuatic Life? % mg/L SU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 100.6 8.19 8.44 722	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 100.6 8.19 8.44 722 25.64	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 100.6 8.19 8.44 722 25.64 13	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 100.6 8.19 8.44 722 25.64 13 5	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 100.6 8.19 8.44 722 25.64 13 5	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 100.6 8.19 8.44 722 25.64 13 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 100.6 8.19 8.44 722 25.64 13 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 100.6 8.19 8.44 722 25.64 13 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 100.6 8.19 8.44 722 25.64 13 5 1 18 3	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 39 of 207

SiteID: LMG030-0008 Sample Date: 9/9/2013 IDEM Sample #: AB14635 **Water Depth** ✓ Algae? **Water Flow Type** Glide Water Appearance Murky ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 110.3 % ASTM D888-09(C) % Sat 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 Observation 27 Lookup 1 Lookup Wind Strength Observation Lab ID #: A994690 **Reporting Limit** Result **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/L0.1 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

6.5 mg/L

SM5310C

1

Tuesday, October 22, 2013 Page 40 of 207

TOC

SiteID: LMG030-0008	Sample Date:	9/16/2013		IDEM Sample	e #: AB12883	
Water Flow Type Run	Water	Appearance	Murky		Water Depth	☐ Algae?
Water Flow (cf/sec):	Flow	v Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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
			> 2/10 6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)			Z413.0			
E. coli	Sample Date:	9/23/2013		MPN/100mL	1	SM9223B
E. coli SiteID: LMG030-0008	Sample Date:	9/23/2013 Appearance		MPN/100mL	1	SM9223B ✓ Algae?
E. coli SiteID: LMG030-0008 Vater Flow Type Run	Water		866.4 Murky	MPN/100mL	1 e #: AB12922	✓ Algae?
E. coli SiteID: LMG030-0008	Water	Appearance	866.4 Murky	MPN/100mL IDEM Sample	e #: AB12922 Water Depth	✓ Algae?
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	866.4 Murky	MPN/100mL IDEM Sample	e #: AB12922 Water Depth	✓ Algae?
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Murky Aq Result 85.3	IDEM Sample quatic Life?	e #: AB12922 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Murky Aq Result 85.3	MPN/100mL IDEM Sample Juatic Life?	e #: AB12922 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat	Water	Appearance	Murky Aq Result 85.3	IDEM Sample quatic Life? % mg/L	e #: AB12922 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Murky Aq Result 85.3 7.72 7.77	IDEM Sample quatic Life? % mg/L	e #: AB12922 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat	Water	Appearance	Murky Aq Result 85.3 7.72 7.77	MPN/100mL IDEM Sample quatic Life? % mg/L SU umho/cm	e #: AB12922 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat	Water	Appearance	Murky Aq Result 85.3 7.72 7.77 469 20.12	MPN/100mL IDEM Sample quatic Life? % mg/L SU umho/cm	e #: AB12922 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	866.4 Murky Aq Result 85.3 7.72 7.77 469 20.12 15.4	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm °C	e #: AB12922 Water Depth Canopy Closed %	✓ Algae? . 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water	Appearance	866.4 Murky Aq Result 85.3 7.72 7.77 469 20.12 15.4 4	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm °C NTU	e #: AB12922 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water	Appearance	866.4 Murky Aq Result 85.3 7.72 7.77 469 20.12 15.4 4 1	MPN/100mL IDEM Sample Juatic Life?	e #: AB12922 Water Depth Canopy Closed %	✓ Algae? . 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water	Appearance	866.4 Murky Aq Result 85.3 7.72 7.77 469 20.12 15.4 4 1 27	MPN/100mL IDEM Sample quatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12922 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG030-0008 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: ** Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	866.4 Murky Aq Result 85.3 7.72 7.77 469 20.12 15.4 4 1 27	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12922 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG030-0008 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	866.4 Murky Aq Result 85.3 7.72 7.77 469 20.12 15.4 4 1 27 1 Result	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12922 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 41 of 207

		W	eather Code Def	initions	
_	C		WD	ws	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 42 of 207

 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

SitelD: LMG-05-0009 **Sample Date:** 7/8/2013 **IDEM Sample #:** AB13613

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	62.9	%		ASTM D888-09(C)
DO	5.36	mg/L		ASTM D888-09(C)
pH (Field)	7.66	SU		EPA 150.2
Specific Conductance (Field)	564	umho/cm		SM2510B
Temperature	23.19	°C		SM2550B(2)
Turbidity (Hach)	11.3	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Flow	7.832	cf/sec		TM D5389-95/D3858
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988968	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	180	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)	15	mg/L	1	SM2540D
Solids, Total (TS)	360	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	300	mg/L	10	SM2540C
Sulfate	31	mg/L	1.3	EPA 300.0
COD	31	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.11	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.81	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.13	mg/L	0.05	EPA 365.1
TKN	1.5	mg/L	0.3	SM4500N(Org)-D
TOC	8	mg/L	1	SM5310C
Lab ID # : AB13613	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6	MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 43 of 207

SiteID: LMG-05-0009 Sample Date: 7/23/2013 IDEM Sample #: AB11727 ✓ Algae? Water Flow Type Run Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 47.5 % SM4500-OG % Sat DO 3.8 mg/L SM4500-OG 7.74 SU pH (Field) EPA 150.2 Specific Conductance (Field) 707 umho/cm SM2510B Temperature 23.36 °C SM2550B(2) Turbidity (Hach) 5.52 NTU EPA 180.1 Air Temp 5 Lookup Observation 1 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0009 Sample Date: IDEM Sample #: AB14020 8/5/2013 ✓ Algae? **Water Depth Water Flow Type** Glide Water Appearance Clear ✓ Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 75.6 % ASTM D888-09(C) % Sat DO 6.75 mg/L ASTM D888-09(C) 7.74 SU pH (Field) EPA 150.2 Specific Conductance (Field) 761 umho/cm SM2510B 20.79 °C Temperature SM2550B(2) Turbidity (Hach) 2.58 NTU EPA 180.1 Air Temp 5 Lookup Observation Flow 1.4024 cf/sec TM D5389-95/D3858 Sky Conditions 4 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 44 of 207

Lab ID # : A991475		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		140	mg/L	50	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1	-	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB14020		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		517.2	MPN/100mL	1	SM9223B
SiteID: LMG-05-0009 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear	IDEM Sample	#: AB12845 Vater Depth	☐ Algae?
SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec):	·		-		
SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec):	Water Appearance		V	Vater Depth	
SiteID: LMG-05-0009 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
SiteID: LMG-05-0009 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	✓ Aq	V uatic Life?	Vater Depth Canopy Closed %	0-20%
SiteID: LMG-05-0009 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V uatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0009 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20%
SiteID: LMG-05-0009 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 86.9 7.37 7.86	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 86.9 7.37 7.86	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 86.9 7.37 7.86 965 23.48	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 86.9 7.37 7.86 965 23.48 1	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 86.9 7.37 7.86 965 23.48 1 5	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 86.9 7.37 7.86 965 23.48 1 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 86.9 7.37 7.86 965 23.48 1 5 1 18	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 86.9 7.37 7.86 965 23.48 1 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 86.9 7.37 7.86 965 23.48 1 5 1 18 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 45 of 207

IDEM Sample #: AB14636 SiteID: LMG-05-0009 Sample Date: 9/9/2013

✓ Algae? Water Flow Type Glide Water Appearance Clear Water Depth

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

ampler Comments:			
Lab ID #:	<u>Result</u>	Reporting Limit	<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 Looku	р	Observation
Flow	0.5259 cf/sec		TM D5389-95/D3858
Sky Conditions	1 Looku	р	Observation
Wind Direction	27 Looku	р	Observation
Wind Strength	1 Looku	p	Observation
Lab ID #: A994691	<u>Result</u>	Reporting Limit	<u>Method</u>
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			
COD	18 mg/L	10	EPA 410.4
Nitrogen, Ammonia		10 0.1	EPA 410.4 SM4500NH3-G
	18 mg/L	-	
Nitrogen, Ammonia	18 mg/L < 0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Ammonia Nitrogen, Nitrate+Nitrite	18 mg/L < 0.1 mg/L 0.24 mg/L	0.1 0.01	SM4500NH3-G EPA 353.2

Tuesday, October 22, 2013 Page 46 of 207

SiteID: LMG-05-0009	Sample Date:	9/16/2013		IDEM Sample	e #: AB12884	
Water Flow Type Run	Water	Appearance	Clear		Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow	Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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
			> 2/10 6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)			<i>></i> 2419.0		2110.0	
E. coli	Sample Date:	9/23/2013		MPN/100mL	1	SM9223B
E. coli SiteID: LMG-05-0009	Sample Date:	9/23/2013 Appearance		MPN/100mL	1	SM9223B
E. coli SiteID: LMG-05-0009 Water Flow Type Run	Water		90.8	MPN/100mL	1 e #: AB12923	☐ Algae?
E. coli SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec):	Water	Appearance	90.8	MPN/100mL IDEM Sample	1 e #: AB12923 Water Depth	☐ Algae?
E. coli SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water	Appearance	90.8	MPN/100mL IDEM Sample	1 e #: AB12923 Water Depth	☐ Algae?
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water	Appearance	90.8 Clear Aq	MPN/100mL IDEM Sampl Juatic Life?	e #: AB12923 Water Depth Canopy Closed %	☐ Algae? 0-20%
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	90.8 Clear Aq Result	MPN/100mL IDEM Sampl Juatic Life?	e #: AB12923 Water Depth Canopy Closed %	☐ Algae? 0-20% <u>Method</u>
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	90.8 Clear Aq Result	IDEM Sample quatic Life? % mg/L	e #: AB12923 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54	IDEM Sample quatic Life? % mg/L	e #: AB12923 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12923 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0009 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54 722 15.74	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12923 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54 722 15.74 2.3	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm °C	e #: AB12923 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54 722 15.74 2.3 4	MPN/100mL IDEM Sample Juatic Life?	e #: AB12923 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54 722 15.74 2.3 4 1	MPN/100mL IDEM Sample quatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12923 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54 722 15.74 2.3 4 1 27	MPN/100mL IDEM Sample Juatic Life?	e #: AB12923 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0009 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54 722 15.74 2.3 4 1 27	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12923 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0009 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water	Appearance	90.8 Clear Aq Result 69.3 6.91 7.54 722 15.74 2.3 4 1 27 1 Result	MPN/100mL IDEM Sample Juatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12923 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation

Tuesday, October 22, 2013 Page 47 of 207

		W	eather Code Def	initions	
S	C		WD	WS	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 48 of 207

SiteID:LMG-05-0010USGS Hydrologic Unit:040400010506Stream Name:Tributary of Duck CreekCounty: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:** 7/8/2013 **IDEM Sample #:** AB13580

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	<u>Method</u>
% Sat	60.4 %			ASTM D888-09(C)
DO	5.28 m	g/L		ASTM D888-09(C)
pH (Field)	7.56 SI	J		EPA 150.2
Specific Conductance (Field)	390 un	nho/cm		SM2510B
Temperature	21.95 °C	;		SM2550B(2)
Turbidity (Hach)	5.46 N	ΤU		EPA 180.1
Air Temp	5 Lo	okup		Observation
Sky Conditions	4 Lo	okup		Observation
Wind Direction	27 Lo	okup		Observation
Wind Strength	1 Lo	ookup		Observation
Lab ID # : A988969	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	130 m	g/L	10	EPA 310.2
Chloride	24 m	g/L	1.3	EPA 300.0
Hardness (as CaCO3)	170 m	g/L	1	SM2340B
Solids, Suspended Total, (TSS)	4 m	g/L	1	SM2540D
Solids, Total (TS)	230 mg	g/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg	g/L	10	SM2540C
Sulfate	19 m	g/L	1.3	EPA 300.0
COD	28 m	g/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg	g/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.37 m	g/L	0.01	EPA 353.2
Phosphorus, Total	0.098 m	g/L	0.05	EPA 365.1
TKN	0.53 m	g/L	0.3	SM4500N(Org)-D
TOC	7.5 m	g/L	1	SM5310C
Lab ID # : AB13580	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 M	PN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MI	PN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 49 of 207

SiteID: LMG-05-0010 Sample Date: 7/22/2013 IDEM Sample #: AB11728 ✓ Algae? Water Flow Type Run Water Appearance Clear Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 52.8 % SM4500-OG % Sat DO 4.52 mg/L SM4500-OG 7.45 SU pH (Field) EPA 150.2 Specific Conductance (Field) 676 umho/cm SM2510B Temperature 22.21 °C SM2550B(2) Turbidity (Hach) 5.8 NTU EPA 180.1 Air Temp 6 Lookup Observation 3 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: LMG-05-0010 Sample Date: IDEM Sample #: AB13987 8/5/2013 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 71 % ASTM D888-09(C) % Sat DO 6.59 mg/L ASTM D888-09(C) pH (Field) 7.73 SU EPA 150.2 Specific Conductance (Field) 633 umho/cm SM2510B 18.73 °C SM2550B(2) Temperature Turbidity (Hach) 3.85 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 50 of 207

Lab ID # : A991476		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		170	mg/L	50	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.01	EPA 353.2
Phosphorus, Total		0.072	-	0.05	EPA 365.1
TKN		< 0.3	-	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB13987		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		770.1	MPN/100mL	1	SM9223B
SiteID: LMG-05-0010 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear		Vater Depth	☐ Algae?
	·		_		
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	✓ Aq	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	v quatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 64.9 5.85	v quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 64.9 5.85 7.62	yuatic Life? % mg/L SU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 64.9 5.85 7.62 846	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 64.9 5.85 7.62 846 20.21	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 64.9 5.85 7.62 846 20.21 8.4	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 64.9 5.85 7.62 846 20.21 8.4 5	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 64.9 5.85 7.62 846 20.21 8.4 5	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 64.9 5.85 7.62 846 20.21 8.4 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 64.9 5.85 7.62 846 20.21 8.4 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 64.9 5.85 7.62 846 20.21 8.4 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 64.9 5.85 7.62 846 20.21 8.4 5 1 18 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 51 of 207

SiteID: LMG-05-0010 Sample Date: 9/9/2013 IDEM Sample #: AB14603 **Water Depth** ✓ Algae? Water Flow Type Glide Water Appearance Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 84.9 % ASTM D888-09(C) % Sat 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 Observation 27 Lookup 1 Lookup Wind Strength Observation Lab ID #: A994692 **Reporting Limit** Result **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/L0.1 SM4500NH3-G Nitrogen, Nitrate+Nitrite 0.01 0.41 mg/L 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 SM5310C 1

Tuesday, October 22, 2013 Page 52 of 207

SiteID: LMG-05-0010	Sample Date:	9/16/2013		IDEM Sample	e # : AB12851	
Water Flow Type Run	Water A	ppearance	Clear		Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow	Estimated?	☐ Aq	uatic Life?	Canopy Closed	% 0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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				Lookup		Observation
Wind Direction			0	Lookup		Observation
Wind Strength			1	Lookup		Observation
Lab ID # : AB12851			Result		Reporting Limit	<u>Method</u>
O-1'((T-(-1)			> 2419 6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)			110.0			
E. coli	Sample Date:			MPN/100mL	1	SM9223B
E. coli SiteID: LMG-05-0010	•	9/23/2013 ppearance		IDEM Sampl	1	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0010 Vater Flow Type Run	Water A	9/23/2013	1732.9	IDEM Sampl	1 e # : AB12890	✓ Algae?
E. coli SiteID: LMG-05-0010	Water A	9/23/2013 ppearance	1732.9	IDEM Sampl	1 e #: AB12890 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water A	9/23/2013 ppearance	1732.9	IDEM Sampl	1 e #: AB12890 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water A	9/23/2013 ppearance	1732.9 Clear	IDEM Sampl	e #: AB12890 Water Depth Canopy Closed	✓ Algae? % 0-20%
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #:	Water A	9/23/2013 ppearance	1732.9 Clear Aq Result	IDEM Sampl	e #: AB12890 Water Depth Canopy Closed	✓ Algae? % 0-20% Method
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat	Water A	9/23/2013 ppearance	1732.9 Clear Aq Result	IDEM Sample uatic Life? % mg/L	e #: AB12890 Water Depth Canopy Closed	✓ Algae? % 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO	Water A	9/23/2013 ppearance	Clear Aq Result 78.9 8 7.62	IDEM Sample uatic Life? % mg/L	e #: AB12890 Water Depth Canopy Closed	✓ Algae? % 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field)	Water A	9/23/2013 ppearance	Clear Aq Result 78.9 8 7.62	Uatic Life? % mg/L SU umho/cm	e #: AB12890 Water Depth Canopy Closed	✓ Algae? % 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli iitelD: LMG-05-0010 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #: % Sat	Water A	9/23/2013 ppearance	Clear Aq Result 78.9 8 7.62 571 14.66	Uatic Life? % mg/L SU umho/cm	e #: AB12890 Water Depth Canopy Closed	✓ Algae? Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water A	9/23/2013 ppearance	Clear Result 78.9 8 7.62 571 14.66 3	We mg/L SU umho/cm °C	e #: AB12890 Water Depth Canopy Closed	✓ Algae? Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0010 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water A	9/23/2013 ppearance	Clear Aq Result 78.9 8 7.62 571 14.66 3 4	W mg/L SU umho/cm °C NTU	e #: AB12890 Water Depth Canopy Closed	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Base	Water A	9/23/2013 ppearance	Clear Result 78.9 8 7.62 571 14.66 3 4 1	Wmg/LSU umho/cm°CNTU Lookup	e #: AB12890 Water Depth Canopy Closed	✓ Algae? Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: -ab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water A	9/23/2013 ppearance	Clear Result 78.9 8 7.62 571 14.66 3 4 1 27	"Watic Life?" "Mag/L SU umho/cm "C NTU Lookup Lookup	e #: AB12890 Water Depth Canopy Closed	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0010 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water A	9/23/2013 ppearance	Clear Result 78.9 8 7.62 571 14.66 3 4 1 27	"C" NTU Lookup Lookup Lookup	e #: AB12890 Water Depth Canopy Closed	Algae? Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0010 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water A	9/23/2013 ppearance Estimated?	Clear Result 78.9 8 7.62 571 14.66 3 4 1 27 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12890 Water Depth Canopy Closed Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 53 of 207

	Weather Code Definitions							
_	C		WD	ws	AT			
Sky Co	nditions	1	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				

Tuesday, October 22, 2013 Page 54 of 207

SiteID: LMG-05-0032 USGS Hydrologic Unit: 040400010506 Stream Name: **Duck Creek** County: Porter Description: 750 W 41 30 59.19250 **Longitude**: -87 12 38.70570 Drainage: 6.517 Site Number: 13T-011 SiteID: LMG-05-0032 Sample Date: 7/8/2013 IDEM Sample #: AB13581 ☐ Algae? Water Flow Type Run **Water Appearance** Murky **Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:**

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	74.1	%		ASTM D888-09(C)
DO	6.66	mg/L		ASTM D888-09(C)
pH (Field)	7.91	SU		EPA 150.2
Specific Conductance (Field)	659	umho/cm		SM2510B
Temperature	20.56	°C		SM2550B(2)
Turbidity (Hach)	14.2	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	3	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988970	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	190	mg/L	10	EPA 310.2
Chloride	38	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	320	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	98	mg/L	1	SM2540D
Solids, Total (TS)	490	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340	mg/L	10	SM2540C
Sulfate	31	mg/L	1.3	EPA 300.0
COD	40	mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	4.2	mg/L	0.05	EPA 353.2
Phosphorus, Total	0.26	mg/L	0.05	EPA 365.1
TKN	0.86	mg/L	0.3	SM4500N(Org)-D
TOC	9	mg/L	1	SM5310C
Lab ID # : AB13581	<u>Result</u>		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6	MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 55 of 207

SiteID: LMG-05-0032 Sample Date: 7/22/2013 IDEM Sample #: AB11729 ☐ Algae? Water Flow Type Run Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Winkler #3 1.8 mg/l Lab ID #: Result Reporting Limit **Method** 22.1 % SM4500-OG % Sat DO 2.33 mg/L SM4500-OG 7.62 SU pH (Field) EPA 150.2 Specific Conductance (Field) 649 umho/cm SM2510B Temperature 23.71 °C SM2550B(2) **Turbidity** 18.6 NTU SM2130B Mod Air Temp 6 Lookup Observation 1 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: LMG-05-0032 Sample Date: IDEM Sample #: AB13988 8/5/2013 ✓ Algae? Water Flow Type Run Water Appearance Murky **Water Depth** ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 68.4 % ASTM D888-09(C) % Sat DO 6.46 mg/L ASTM D888-09(C) 7.93 SU pH (Field) EPA 150.2 Specific Conductance (Field) 747 umho/cm SM2510B 18.18 °C Temperature SM2550B(2) Turbidity (Hach) 34 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 56 of 207

Lab ID # : A991477			Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)			180	mg/L	10	EPA 310.2
Chloride			74	mg/L	2.5	EPA 300.0
Hardness (as CaCO3)			310	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			22	mg/L	1	SM2540D
Solids, Total (TS)			530	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			460	mg/L	10	SM2540C
Sulfate			72	mg/L	2.5	EPA 300.0
COD			31	mg/L	10	EPA 410.4
Nitrogen, Ammonia			< 0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			0.3	mg/L	0.01	EPA 353.2
Phosphorus, Total			0.17	mg/L	0.05	EPA 365.1
TKN			< 0.3	mg/L	0.3	SM4500N(Org)-D
TOC			10	mg/L	1	SM5310C
Lab ID # : AB13988			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli			770.1	MPN/100mL	1	SM9223B
SiteID: LMG-05-0032	Sample Date:	9/9/2013		IDEM Sample	#: AB14604	
Water Flow Type Pool	•	Appearance	Murky	•	/ater Depth	✓ Algae?
Water Flow (cf/sec): Sampler Comments: Isolated		/ Estimated?	☐ Ac	quatic Life?	Canopy Closed %	0-20%
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			10.9	%		ASTM D888-09(C)
DO			0.96	mg/L		ASTM D888-09(C)
pH (Field)			7.72			EPA 150.2
Specific Conductance (Field)			795	umho/cm		SM2510B
Temperature			18.37	°C		SM2550B(2)
Turbidity (Hach)			20.5	NTU		EPA 180.1
, <u>, , </u>						

6 Lookup

1 Lookup

27 Lookup

1 Lookup

Observation

Observation

Observation

Observation

Tuesday, October 22, 2013 Page 57 of 207

Air Temp

Sky Conditions

Wind Direction

Wind Strength

Lab ID #: A994693

Alkalinity (as CaCO3)			350	mg/L	20	EPA 310.2
Chloride			52	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			350	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			16	mg/L	1	SM2540D
Solids, Total (TS)			470	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			430	mg/L	10	SM2540C
Sulfate			4.2	mg/L	0.25	EPA 300.0
COD			42	mg/L	10	EPA 410.4
Nitrogen, Ammonia			2.6	mg/L	0.5	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			0.016	mg/L	0.01	EPA 353.2
Phosphorus, Total			0.86	mg/L	0.05	EPA 365.1
TKN			4.3	mg/L	0.3	SM4500N(Org)-D
TOC			12	mg/L	1	SM5310C
SiteID: LMG-05-0032	Sample Date: 9	/9/2013		IDEM Sample	#: AB12813	
Water Flow Type Stagnant	Water Ap	pearance	Murky	V	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow E	stimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
, ,	☐ Flow E	stimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
, ,	☐ Flow E		Aq	uatic Life?	Canopy Closed % Reporting Limit	0-20% Method
Sampler Comments:	☐ Flow E					<u>Method</u>
Sampler Comments:	☐ Flow E		Result	%		
Sampler Comments: Lab ID #: % Sat	☐ Flow E		Result	% mg/L		Method ASTM D888-09(C)
Sampler Comments: Lab ID #: % Sat DO	☐ Flow E		13.7 1.26 7.83	% mg/L		Method ASTM D888-09(C) ASTM D888-09(C)
Sampler Comments: Lab ID #: % Sat DO pH (Field)	□ Flow E		13.7 1.26 7.83	% mg/L SU umho/cm		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	□ Flow E		13.7 1.26 7.83 824	% mg/L SU umho/cm °C		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Sampler Comments: Lab ID #: % Sat	□ Flow E		13.7 1.26 7.83 824 19.61 14.2	% mg/L SU umho/cm °C		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Sampler Comments: Lab ID #: % Sat	□ Flow E		13.7 1.26 7.83 824 19.61 14.2	% mg/L SU umho/cm °C NTU		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	□ Flow E		13.7 1.26 7.83 824 19.61 14.2 5	% mg/L SU umho/cm °C NTU Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Sampler Comments: "" " " " " " " " " " " " " " " " " "	□ Flow E		13.7 1.26 7.83 824 19.61 14.2 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Sampler Comments: "" "" "" "" "" "" "" "" "" "" "" "" "	☐ Flow E		13.7 1.26 7.83 824 19.61 14.2 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup		Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Sampler Comments: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	□ Flow E		13.7 1.26 7.83 824 19.61 14.2 5 1 18 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Result

Reporting Limit

Method

Tuesday, October 22, 2013 Page 58 of 207

SiteID: LMG-05-0032	Sample Date: 9/16/2013		•	#: AB12852	
Vater Flow Type Stagnant	Water Appearance	Murky	V	Vater Depth	☐ Algae?
/ater Flow (cf/sec):	☐ Flow Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
ampler 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		<u>Result</u>		Reporting Limit	<u>Method</u>
E. coli		435.2	MPN/100mL	1	SM9223B
Lab ID # : AB12852a		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 24196	MPN/100mL	24196	SM9223B
SiteID: LMG-05-0032	Sample Date: 9/23/2013		IDEM Sample	#: AB12891	
SiteID: LMG-05-0032 Nater Flow Type Run	Water Appearance	Murky	IDEM Sample	#: AB12891 Vater Depth	✓ Algae?
SiteID: LMG-05-0032 Water Flow Type Run Water Flow (cf/sec):	-	Murky	IDEM Sample	#: AB12891	✓ Algae?
SiteID: LMG-05-0032 Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance	Murky	IDEM Sample	#: AB12891 Vater Depth	✓ Algae?
SiteID: LMG-05-0032 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	Murky	IDEM Sample	#: AB12891 Vater Depth	✓ Algae?
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	Murky	IDEM Sample V Juatic Life?	#: AB12891 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Murky Aq Result	IDEM Sample V Juatic Life?	#: AB12891 Vater Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Murky Aq Result	IDEM Sample V quatic Life? % mg/L	#: AB12891 Vater Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Murky Aq Result 82 8.44 7.82	IDEM Sample V quatic Life? % mg/L	#: AB12891 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Murky Aq Result 82 8.44 7.82	IDEM Sample V Juatic Life? % mg/L SU umho/cm	#: AB12891 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Murky Result 82 8.44 7.82 927	IDEM Sample V Juatic Life? % mg/L SU umho/cm °C	#: AB12891 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 82 8.44 7.82 927 13.92 16.2	IDEM Sample V quatic Life? % mg/L SU umho/cm °C NTU	#: AB12891 Vater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Murky Result 82 8.44 7.82 927 13.92 16.2 4	IDEM Sample V quatic Life? % mg/L SU umho/cm °C NTU Lookup	#: AB12891 Vater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0032 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Murky Result 82 8.44 7.82 927 13.92 16.2 4 1	Multic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	#: AB12891 Vater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0032 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 82 8.44 7.82 927 13.92 16.2 4 1	IDEM Sample V quatic Life? % mg/L SU umho/cm °C NTU Lookup	#: AB12891 Vater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0032 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 82 8.44 7.82 927 13.92 16.2 4 1	Muatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	#: AB12891 Vater Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0032 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 82 8.44 7.82 927 13.92 16.2 4 1 27 1 Result	Muatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	#: AB12891 Vater Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 59 of 207

	Weather Code Definitions								
_	SC WD onditions 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					

Tuesday, October 22, 2013 Page 60 of 207

 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

SitelD: LMG-05-0011 **Sample Date:** 7/8/2013 **IDEM Sample #:** AB13582

Water Flow Type Glide Water Appearance Murky Water Depth Algae?

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

Sampler Comments:

Lab ID #:	<u>Result</u>	Reporting Limit	<u>Method</u>
% Sat	74.8 %		ASTM D888-09(C)
DO	6.37 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	744 umho/cm		SM2510B
Temperature	23.28 °C		SM2550B(2)
Turbidity (Hach)	29.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	52.267 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation
Lab ID # : A988971	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	200 mg/L	10	EPA 310.2
Chloride	58 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	300 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	20 mg/L	1	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/L	10	SM2540C
Sulfate	40 mg/L	1.3	EPA 300.0
COD	30 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.12 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.5 mg/L	0.05	EPA 353.2
Phosphorus, Total	0.24 mg/L	0.05	EPA 365.1
TKN	1.4 mg/L	0.3	SM4500N(Org)-D
TOC	8.2 mg/L	1	SM5310C
Lab ID # : AB13582	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 61 of 207

SiteID: LMG-05-0011 Sample Date: 7/22/2013 IDEM Sample #: AB11730 ✓ Algae? Water Flow Type Run Water Appearance Brown Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 76.3 % SM4500-OG % Sat DO 6.02 mg/L SM4500-OG 7.96 SU pH (Field) EPA 150.2 Specific Conductance (Field) 654 umho/cm SM2510B Temperature 26.34 °C SM2550B(2) Turbidity (Hach) 12.5 NTU EPA 180.1 Air Temp 5 Lookup Observation 2 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0011 Sample Date: IDEM Sample #: AB13989 8/5/2013 ✓ Algae? **Water Flow Type** Glide Water Appearance Murky **Water Depth** ✓ Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 85.1 % ASTM D888-09(C) % Sat DO 7.72 mg/L ASTM D888-09(C) pH (Field) 7.89 SU EPA 150.2 Specific Conductance (Field) 674 umho/cm SM2510B 19.97 °C Temperature SM2550B(2) Turbidity (Hach) 11.7 NTU EPA 180.1 Air Temp 4 Lookup Observation Flow 32.132 cf/sec TM D5389-95/D3858 Sky Conditions 4 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 62 of 207

Lab ID # : A991478		<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		170	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.05	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB13989		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		727	MPN/100mL	1	SM9223B
SiteID: LMG-05-0011 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Murky	IDEM Sample	#: AB12814 Vater Depth	✓ Algae?
Water Flow Type Run	Water Appearance		V	Vater Depth	✓ Algae?
	·		_		
Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Ac	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V Juatic Life?	Vater Depth Canopy Closed %	0-20% Method
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	v quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 97.5 8.44 8.12	v quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 97.5 8.44 8.12	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 97.5 8.44 8.12 787 22.41	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 97.5 8.44 8.12 787 22.41 17	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	97.5 8.44 8.12 787 22.41 17 5	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	97.5 8.44 8.12 787 22.41 17 5	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 97.5 8.44 8.12 787 22.41 17 5 1	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 97.5 8.44 8.12 787 22.41 17 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 97.5 8.44 8.12 787 22.41 17 5 1 18 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 63 of 207

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:				
Lab ID #:	Result		Reporting Limit	<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
Lab ID # : A994694	Result		Reporting Limit	<u>Method</u>
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

Tuesday, October 22, 2013 Page 64 of 207

SiteID: LMG-05-0011	Sample Date:	9/16/2013		IDEM Sample	e #: AB12853	
Vater Flow Type Run	Water	Appearance	Murky		Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flo	w Estimated?	□ Ac	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			94.1	%		ASTM D888-09(C)
DO			9.03	mg/L		ASTM D888-09(C)
pH (Field)			8.16	-		EPA 150.2
Specific Conductance (Field)			761	umho/cm		SM2510B
Temperature			17.24	°C		SM2550B(2)
Turbidity			21	NTU		SM2130B Mod
Air Temp				Lookup		Observation
Sky Conditions				Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
Lab ID # : AB12853			<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
					=	002202
E. coli	Sample Date:	9/23/2013	727	MPN/100mL	1 e#: AB12892	SM9223B
E. coli	Sample Date:	9/23/2013 • Appearance	727 Clear	IDEM Sample		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0011 Water Flow Type Run	Water		Clear	IDEM Sample	e#: AB12892	✓ Algae?
E. coli SiteID: LMG-05-0011	Water	Appearance	Clear	IDEM Sample	e #: AB12892 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0011 Water Flow Type Run Water Flow (cf/sec):	Water	Appearance	Clear	IDEM Sample	e #: AB12892 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0011 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water	Appearance	Clear ✓ Ac	IDEM Samplo	e #: AB12892 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0011 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Clear Acc Result 85.6	IDEM Samplo	e #: AB12892 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0011 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Clear Acc Result 85.6	IDEM Sample puatic Life? % mg/L	e #: AB12892 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0011 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Clear Result 85.6 8.45 7.87	IDEM Sample puatic Life? % mg/L	e #: AB12892 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0011 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	Clear Result 85.6 8.45 7.87	IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12892 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0011 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 85.6 8.45 7.87 711 15.9	IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12892 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0011 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 85.6 8.45 7.87 711 15.9 9.8	JUEM Sample Juatic Life?	e #: AB12892 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0011 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 85.6 8.45 7.87 711 15.9 9.8 4	JUEM Sample Juatic Life?	e #: AB12892 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0011 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 85.6 8.45 7.87 711 15.9 9.8 4 1	"C" NTU Lookup Lookup	e #: AB12892 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0011 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water	Appearance	Clear Result 85.6 8.45 7.87 711 15.9 9.8 4 1 27	JUEM Sample Juatic Life?	e #: AB12892 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0011 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 85.6 8.45 7.87 711 15.9 9.8 4 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12892 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0011 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Clear Result 85.6 8.45 7.87 711 15.9 9.8 4 1 27 1 Result	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12892 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 65 of 207

	Weather Code Definitions							
S	C		WD	WS	AT			
Sky Co	nditions	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				

Tuesday, October 22, 2013 Page 66 of 207

SiteID:LMG-05-0033USGS Hydrologic Unit:040400010507Stream Name:Sprout DitchCounty:Lake

Description: 70th Avenue **Latitude**: 41 29 34.65281 **Longitude**: -87 17 15.43279

Drainage: 3.628 **Site Number:** 13T-013

SitelD: LMG-05-0033 **Sample Date:** 7/8/2013 **IDEM Sample #:** AB13583

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	<u>Method</u>
% Sat	79.3	%		ASTM D888-09(C)
DO	6.85	mg/L		ASTM D888-09(C)
pH (Field)	7.56	SU		EPA 150.2
Specific Conductance (Field)	513	umho/cm		SM2510B
Temperature	22.56	°C		SM2550B(2)
Turbidity (Hach)	456	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988972	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	38	mg/L	10	EPA 310.2
Chloride	73	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	140	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	270	mg/L	1	SM2540D
Solids, Total (TS)	570	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340	mg/L	10	SM2540C
Sulfate	17	mg/L	1.3	EPA 300.0
COD	39	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.14	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.4	mg/L	0.05	EPA 353.2
Phosphorus, Total	0.69		0.05	EPA 365.1
TKN	1.4	mg/L	0.3	SM4500N(Org)-D
TOC	9.6	mg/L	1	SM5310C
Lab ID # : AB13583	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6	MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 67 of 207

SiteID: LMG-05-0033 Sample Date: 7/22/2013 IDEM Sample #: AB11731 ☐ Algae? Water Flow Type Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Q2 Turbidity: 62 Lab ID #: Result Reporting Limit **Method** 47.1 % SM4500-OG % Sat DO 4.2 mg/L SM4500-OG 7.9 SU pH (Field) EPA 150.2 Specific Conductance (Field) 970 umho/cm SM2510B Temperature 22.39 °C SM2550B(2) **Turbidity** 62 NTU SM2130B Mod Air Temp 5 Lookup Observation 2 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: LMG-05-0033 Sample Date: IDEM Sample #: AB13990 8/5/2013 ✓ Algae? Water Flow Type Run Water Appearance Murky **Water Depth** ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 87.1 % ASTM D888-09(C) % Sat DO 7.8 mg/L ASTM D888-09(C) pH (Field) 7.9 SU EPA 150.2 Specific Conductance (Field) 847 umho/cm SM2510B 20.61 °C Temperature SM2550B(2) Turbidity (Hach) 12.9 NTU EPA 180.1 Air Temp 3 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 68 of 207

Lab ID # : A991479		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		110	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.01	EPA 353.2
Phosphorus, Total		0.053	-	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	5	SM5310C
Lab ID # : AB13990		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		866.4	MPN/100mL	1	SM9223B
SiteID: LMG-05-0033 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear	IDEM Sample	#: AB12815 Vater Depth	☐ Algae?
SiteID: LMG-05-0033	·		-		-
SiteID: LMG-05-0033 Water Flow Type Run	Water Appearance		V	Vater Depth	-
SiteID: LMG-05-0033 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	-
SiteID: LMG-05-0033 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water Appearance	✓ Aq	V Juatic Life?	Vater Depth Canopy Closed %	0-20% <u>Method</u>
SiteID: LMG-05-0033 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	vuatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% <u>Method</u>
SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 60.2 5.39 7.72	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0033 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 60.2 5.39 7.72 1156	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 60.2 5.39 7.72 1156 20.62	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0033 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 60.2 5.39 7.72 1156 20.62 2.9	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 60.2 5.39 7.72 1156 20.62 2.9 5	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 60.2 5.39 7.72 1156 20.62 2.9 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 60.2 5.39 7.72 1156 20.62 2.9 5 1 18	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 60.2 5.39 7.72 1156 20.62 2.9 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0033 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 60.2 5.39 7.72 1156 20.62 2.9 5 1 18 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 69 of 207

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	<u>Method</u>	
% 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	
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	

Tuesday, October 22, 2013 Page 70 of 207

SiteID: LMG-05-0033	Sample Date: 9/16/2013	IDEM Samı	ole #: AB12854	
Nater Flow Type Run	Water Appearance	Clear	Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	✓ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% 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	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100ml	L 2419.6	SM9223B
E. coli SitelD: LMG-05-0033	Sample Date: 9/23/2013	160.7 MPN/100ml		SM9223B
E. coli	Sample Date: 9/23/2013 Water Appearance			SM9223B
E. coli SiteID: LMG-05-0033 Nater Flow Type Run	·	IDEM Sam	ole #: AB12893	☐ Algae?
E. coli SiteID: LMG-05-0033 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	IDEM Samp	ple #: AB12893 Water Depth	☐ Algae?
E. coli SitelD: LMG-05-0033	Water Appearance	IDEM Samp	ple #: AB12893 Water Depth	☐ Algae?
E. coli SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	IDEM Samp Murky Aquatic Life?	ole #: AB12893 Water Depth Canopy Closed %	☐ Algae? 0-20%
E. coli SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Samp Murky Aquatic Life? Result	ole #: AB12893 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
E. coli SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Samp Murky Aquatic Life? Result 86.1 %	ole #: AB12893 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	IDEM Samp Murky Aquatic Life? Result 86.1 % 8.68 mg/L	ole #: AB12893 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SitelD: LMG-05-0033 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 86.1 % 8.68 mg/L 7.77 SU	ole #: AB12893 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0033 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 86.1 % 8.68 mg/L 7.77 SU 899 umho/cm	ole #: AB12893 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0033 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 86.1 % 8.68 mg/L 7.77 SU 899 umho/cm 14.88 °C	ole #: AB12893 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0033 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 86.1 % 8.68 mg/L 7.77 SU 899 umho/cm 14.88 °C 14.9 NTU	ole #: AB12893 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Murky Aquatic Life? Result 86.1 % 8.68 mg/L 7.77 SU 899 umho/cm 14.88 °C 14.9 NTU 4 Lookup	ole #: AB12893 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 86.1 % 8.68 mg/L 7.77 SU 899 umho/cm 14.88 °C 14.9 NTU 4 Lookup 1 Lookup	ole #: AB12893 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SitelD: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	IDEM Samp Murky Aquatic Life? Result 86.1 % 8.68 mg/L 7.77 SU 899 umho/cm 14.88 °C 14.9 NTU 4 Lookup 1 Lookup 27 Lookup	ole #: AB12893 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0033 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Murky Aquatic Life? Result 86.1 % 8.68 mg/L 7.77 SU 899 umho/cm 14.88 °C 14.9 NTU 4 Lookup 1 Lookup 27 Lookup 1 Lookup	Pole #: AB12893 Water Depth Canopy Closed % Reporting Limit Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 71 of 207

Weather Code Definitions					
_	C		WD	ws	AT
Sky Co	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	

Tuesday, October 22, 2013 Page 72 of 207

SiteID: LMG-05-0012 USGS Hydrologic Unit: 040400010507 Stream Name: Deep River County: Lake Description: 41 28 34.10215 **Longitude**: Joliet Road -87 13 12.54660 66.707 Site Number: 13T-014 Drainage: SiteID: LMG-05-0012 Sample Date: 7/9/2013 IDEM Sample #: AB13584 ☐ Algae? Water Flow Type Riffle Water Appearance Brown **Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:**

Lab ID #:	Result	Reporting Limit	Method
% Sat	77.2 %		ASTM D888-09(C)
DO	6.76 mg/L		ASTM D888-09(C)
pH (Field)	7.69 SU		EPA 150.2
Specific Conductance (Field)	424 umho/cm		SM2510B
Temperature	21.8 °C		SM2550B(2)
Turbidity (Hach)	92.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Flow	96.1718 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # : A988973	Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	94 mg/L	10	EPA 310.2
Chloride	45 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	160 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	7 mg/L	1	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	210 mg/L	10	SM2540C
Sulfate	29 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	1.7 mg/L	0.05	EPA 353.2
Phosphorus, Total	0.35 mg/L	0.05	EPA 365.1
TKN	1.5 mg/L	0.3	SM4500N(Org)-D
TOC	7.8 mg/L	1	SM5310C
Lab ID # : AB13584	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
Comornia (Total)	. =		

Tuesday, October 22, 2013 Page 73 of 207

SiteID: LMG-05-0012 Sample Date: 7/22/2013 IDEM Sample #: AB11732 **Water Depth** ✓ Algae? Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Q2 Turbidity: 1.0 Lab ID #: Result Reporting Limit **Method** 109.7 % SM4500-OG % Sat DO 8.99 mg/L SM4500-OG 8.99 SU pH (Field) EPA 150.2 Specific Conductance (Field) 628 umho/cm SM2510B Temperature 25.83 °C SM2550B(2) Turbidity (Hach) 3.35 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0012 Sample Date: IDEM Sample #: AB13991 8/6/2013 ✓ Algae? **Water Depth Water Flow Type** Riffle Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 85.8 % ASTM D888-09(C) % Sat DO 7.98 mg/L ASTM D888-09(C) pH (Field) 8.01 SU EPA 150.2 Specific Conductance (Field) 678 umho/cm SM2510B 18.76 °C Temperature SM2550B(2) Turbidity (Hach) 7.58 NTU EPA 180.1 Air Temp 4 Lookup Observation Flow 17.1057 cf/sec TM D5389-95/D3858 Sky Conditions 4 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 74 of 207

Lab ID # : A991480		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		190	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1	-	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.05	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB13991		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		325.5	MPN/100mL	1	SM9223B
SiteID: LMG-05-0012 Water Flow Type Riffle	Sample Date: 9/9/2013 Water Appearance	Clear	IDEM Sample	#: AB12816 Vater Depth	☐ Algae?
SiteID: LMG-05-0012 Water Flow Type Riffle Water Flow (cf/sec):	·		_		
SiteID: LMG-05-0012 Nater Flow Type Riffle	Water Appearance		V	Vater Depth	
SiteID: LMG-05-0012 Vater Flow Type Riffle Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
SiteID: LMG-05-0012 Vater Flow Type Riffle Vater Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Aq	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
SiteID: LMG-05-0012 Vater Flow Type Riffle Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	v quatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0012 Vater Flow Type Riffle Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	v quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20%
SiteID: LMG-05-0012 Vater Flow Type Riffle Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 114.7 9.75 8.26	v quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0012 Vater Flow Type Riffle Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 114.7 9.75 8.26	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0012 Water Flow Type Riffle Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 114.7 9.75 8.26 766 23.35	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0012 Water Flow Type Riffle Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 114.7 9.75 8.26 766 23.35 2.1	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0012 Nater Flow Type Riffle Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 114.7 9.75 8.26 766 23.35 2.1 5	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0012 Nater Flow Type Riffle Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 114.7 9.75 8.26 766 23.35 2.1 5	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0012 Nater Flow Type Riffle Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 114.7 9.75 8.26 766 23.35 2.1 5 1	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0012 Nater Flow Type Riffle Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 114.7 9.75 8.26 766 23.35 2.1 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0012 Nater Flow Type Riffle Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 114.7 9.75 8.26 766 23.35 2.1 5 1 18 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 75 of 207

SiteID: LMG-05-0012 Sample Date: IDEM Sample #: AB14607 9/10/2013

✓ Algae? Water Flow Type Riffle Water Appearance Clear Water Depth

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

Sampler Comments:			
Lab ID #:	<u>Result</u>	Reporting Limit	Method
% 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/cn	n	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
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			
Sullate	49 mg/L	1.3	EPA 300.0
COD		1.3 10	
	49 mg/L		EPA 300.0
COD	49 mg/L 18 mg/L	10	EPA 300.0 EPA 410.4
COD Nitrogen, Ammonia	49 mg/L 18 mg/L < 0.1 mg/L	10 0.1	EPA 300.0 EPA 410.4 SM4500NH3-G
COD Nitrogen, Ammonia Nitrogen, Nitrate+Nitrite	49 mg/L 18 mg/L < 0.1 mg/L 6.9 mg/L	10 0.1 0.2	EPA 300.0 EPA 410.4 SM4500NH3-G EPA 353.2

Page 76 of 207 Tuesday, October 22, 2013

SiteID: LMG-05-0012	Sample Date:	9/16/2013		IDEM Sample	e#: AB12855	
Water Flow Type Run	Water	Appearance	Clear		Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow	v Estimated?	☐ Aq	uatic Life?	Canopy Closed	6 0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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				Lookup		Observation
Wind Strength			1	Lookup		Observation
Lab ID # : AB12855			Result		Reporting Limit	<u>Method</u>
O. I. (T. 1. IV.			> 2419.6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)						
E. coli	Sample Date:	9/23/2013		MPN/100mL	1 e # : AB12894	SM9223B
E. coli SiteID: LMG-05-0012	Sample Date:	9/23/2013 Appearance		IDEM Sampl		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0012 Vater Flow Type Run	Water		152.9 Clear	IDEM Sampl	e # : AB12894	✓ Algae?
E. coli SiteID: LMG-05-0012	Water	Appearance	152.9 Clear	IDEM Sampl	e #: AB12894 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	152.9 Clear	IDEM Sampl	e #: AB12894 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	Clear	IDEM Sampl	e #: AB12894 Water Depth Canopy Closed ⁽	✓ Algae? % 0-20%
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result 98.4	IDEM Sampl	e #: AB12894 Water Depth Canopy Closed ⁽	✓ Algae? % 0-20% Method
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result 98.4	IDEM Sample quatic Life? % mg/L	e #: AB12894 Water Depth Canopy Closed ⁽	✓ Algae? 6 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Clear Result 98.4 9.79 8.05	IDEM Sample quatic Life? % mg/L	e #: AB12894 Water Depth Canopy Closed ⁽	✓ Algae? 6 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 98.4 9.79 8.05	IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12894 Water Depth Canopy Closed ⁽	✓ Algae? ✓ 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Clear Result 98.4 9.79 8.05 710 15.51	IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12894 Water Depth Canopy Closed ⁽	✓ Algae? ✓ 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Clear Result 98.4 9.79 8.05 710 15.51 3.9	Muatic Life? % mg/L SU umho/cm °C	e #: AB12894 Water Depth Canopy Closed ⁽	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat **DO **pH (Field) **Specific Conductance (Field) **Temperature **Turbidity	Water	Appearance	Clear Result 98.4 9.79 8.05 710 15.51 3.9 4	Multic Life? % mg/L SU umho/cm °C NTU	e #: AB12894 Water Depth Canopy Closed ⁽	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Bat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water	Appearance	Clear Result 98.4 9.79 8.05 710 15.51 3.9 4	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12894 Water Depth Canopy Closed ⁽	✓ Algae? ✓ Algae? ✓ Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water	Appearance	Clear Result 98.4 9.79 8.05 710 15.51 3.9 4 1 27	Muatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12894 Water Depth Canopy Closed ⁽	✓ Algae? Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SitelD: LMG-05-0012 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Clear Result 98.4 9.79 8.05 710 15.51 3.9 4 1 27	"C" NTU Lookup Lookup Lookup	e #: AB12894 Water Depth Canopy Closed ⁽	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0012 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 98.4 9.79 8.05 710 15.51 3.9 4 1 27 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12894 Water Depth Canopy Closed Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 77 of 207

		W	eather Code Def	initions	
S	C		WD	WS	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 78 of 207

SiteID:LMG-05-0013USGS Hydrologic Unit:040400010504Stream Name:Tributary of Deep RiverCounty: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:** 7/9/2013 **IDEM Sample #:** AB13585

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	83.7 %		ASTM D888-09(C)
DO	7.95 mg/	L	ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	624 uml	no/cm	SM2510B
Temperature	17.73 °C		SM2550B(2)
Turbidity (Hach)	23.4 NT	J	EPA 180.1
Air Temp	4 Loo	kup	Observation
Sky Conditions	4 Loo	kup	Observation
Wind Direction	27 Loo	kup	Observation
Wind Strength	2 Loo	kup	Observation
Lab ID # : A988974	<u>Result</u>	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	230 mg/	L 50	EPA 310.2
Chloride	12 mg/	L 1.3	EPA 300.0
Hardness (as CaCO3)	340 mg/	L 1	SM2340B
Solids, Suspended Total, (TSS)	23 mg/	L 1	SM2540D
Solids, Total (TS)	440 mg/	L 10	SM2540B
Solids, Total Dissolved (TDS)	360 mg/	L 10	SM2540C
Sulfate	58 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	0.36 mg/	L 0.01	EPA 353.2
Phosphorus, Total	0.099 mg/	L 0.05	EPA 365.1
TKN	1.3 mg/	L 0.3	SM4500N(Org)-D
TOC	8.3 mg/	L 1	SM5310C
Lab ID # : AB13585	Result	Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 MP	N/100mL 2419.6	SM9223B
E. coli	> 2419.6 MP	N/100mL 2419.6	SM9223B

Tuesday, October 22, 2013 Page 79 of 207

SiteID: LMG-05-0013 Sample Date: 7/23/2013 IDEM Sample #: AB11733 ☐ Algae? Water Flow Type Pool Water Appearance Clear Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Q-2 Turbidity: 31 NTU Lab ID #: Result Reporting Limit **Method** 80.1 % SM4500-OG % Sat DO 8.13 mg/L SM4500-OG 7.75 SU pH (Field) EPA 150.2 Specific Conductance (Field) 734 umho/cm SM2510B Temperature 18.84 °C SM2550B(2) Turbidity (Hach) 11.3 NTU EPA 180.1 Air Temp 4 Lookup Observation 2 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: LMG-05-0013 Sample Date: IDEM Sample #: AB13992 8/6/2013 ✓ Algae? **Water Depth** Water Flow Type Water Appearance Clear **✓** Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 88.8 % ASTM D888-09(C) % Sat DO 8.81 mg/L ASTM D888-09(C) pH (Field) 8.07 SU EPA 150.2 Specific Conductance (Field) 700 umho/cm SM2510B 15.67 °C SM2550B(2) Temperature Turbidity (Hach) 13.4 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 80 of 207

Lab ID # : A991481		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		270	mg/L	50	EPA 310.2
Chloride			mg/L	0.25	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		12	mg/L	1	SM2540D
Solids, Total (TS)		470	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		450	mg/L	10	SM2540C
Sulfate		79	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		0.19	mg/L	0.01	EPA 353.2
Phosphorus, Total		< 0.05	mg/L	0.05	EPA 365.1
TKN		0.41	mg/L	0.3	SM4500N(Org)-D
TOC		3	mg/L	1	SM5310C
Lab ID # : AB13992		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		686.7	MPN/100mL	1	SM9223B
SiteID: LMG-05-0013 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear	IDEM Sample	#: AB12817 Water Depth	☐ Algae?
	•		_		
Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance		,	Water Depth	
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance		,	Water Depth	
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Aq	uatic Life?	Water Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	uatic Life?	Water Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	watic Life? % mg/L	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 92.4 8.43 8.13	watic Life? % mg/L	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 92.4 8.43 8.13	% mg/L SU umho/cm	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 92.4 8.43 8.13 744 19.72	% mg/L SU umho/cm	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 92.4 8.43 8.13 744 19.72 6.8	watic Life? % mg/L SU umho/cm °C NTU	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 92.4 8.43 8.13 744 19.72 6.8 5	watic Life? % mg/L SU umho/cm °C	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 92.4 8.43 8.13 744 19.72 6.8 5	% mg/L SU umho/cm °C NTU Lookup Lookup	Water Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 92.4 8.43 8.13 744 19.72 6.8 5 1	% mg/L SU umho/cm °C NTU Lookup	Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 92.4 8.43 8.13 744 19.72 6.8 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 92.4 8.43 8.13 744 19.72 6.8 5 1 18 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 81 of 207

SiteID: LMG-05-0013	Sample Date: 9/10/2013	IDE	M Sample #: AB14608	
Water Flow Type Glide	Water Appearance	Murky	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatio	Life? Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% 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 umh	o/cm	SM2510B
Temperature		17.9 °C		SM2550B(2)
Turbidity (Hach)		11.9 NTU		EPA 180.1
Air Temp		5 Look	tup	Observation
Sky Conditions		1 Look	tup	Observation
Wind Direction		27 Look	tup	Observation
Wind Strength		1 Look	rup	Observation
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

Tuesday, October 22, 2013 Page 82 of 207

SiteID: LMG-05-0013	Sample Date: 9/16/2013		IDEM Sampl	e #: AB12856	
Water Flow Type Run	Water Appearance	Clear		Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aq	uatic 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
Collionns (Total)		ZT10.0			
E. coli SiteID: LMG-05-0013	Sample Date: 9/23/2013		MPN/100mL	1 e #: AB12895	SM9223B
E. coli SitelD: LMG-05-0013	Sample Date: 9/23/2013 Water Appearance			<u> </u>	SM9223B
E. coli SiteID: LMG-05-0013 Nater Flow Type Run	•	727		e #: AB12895	☐ Algae?
E. coli SiteID: LMG-05-0013 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	727	IDEM Sampl	e #: AB12895 Water Depth	☐ Algae?
E. coli SiteID: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	727	IDEM Sampl	e #: AB12895 Water Depth	☐ Algae?
E. coli SiteID: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	Clear Aq Result	IDEM Sampl uatic Life?	e #: AB12895 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Clear Aq Result	IDEM Sampl uatic Life?	e #: AB12895 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
E. coli SiteID: LMG-05-0013 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aq Result 90.2 9.35 7.99	IDEM Sampl uatic Life? % mg/L SU	e #: AB12895 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SitelD: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Clear Aq Result 90.2 9.35 7.99	IDEM Sampl uatic Life? % mg/L	e #: AB12895 Water Depth Canopy Closed %	O-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SitelD: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aq Result 90.2 9.35 7.99	Uatic Life? % mg/L SU umho/cm	e #: AB12895 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Result 90.2 9.35 7.99 727 13.61	Uatic Life? % mg/L SU umho/cm	e #: AB12895 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SitelD: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Result 90.2 9.35 7.99 727 13.61 9.1	We mg/L SU umho/cm °C	e #: AB12895 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Result 90.2 9.35 7.99 727 13.61 9.1 4	Wmg/LSU umho/cm°CNTU	e #: AB12895 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SitelD: LMG-05-0013 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Clear Result 90.2 9.35 7.99 727 13.61 9.1 4 1	Muatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12895 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SitelD: LMG-05-0013 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Clear Result 90.2 9.35 7.99 727 13.61 9.1 4 1 27	"C" NTU Lookup Lookup	e #: AB12895 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0013 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Clear Result 90.2 9.35 7.99 727 13.61 9.1 4 1 27	"C" NTU Lookup Lookup Lookup	e #: AB12895 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0013 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Clear Result 90.2 9.35 7.99 727 13.61 9.1 4 1 27 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12895 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 83 of 207

		W	eather Code Def	initions	
S	C		WD	WS	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 84 of 207

Air Temp

Sky Conditions

Wind Direction

Wind Strength

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 2.364 Site Number: 13T-016 Drainage: SiteID: LMG-05-0034 Sample Date: 7/9/2013 IDEM Sample #: AB13586 ☐ Algae? Water Flow Type Water Appearance Murky **Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 83.8 % % Sat ASTM D888-09(C) 7.5 mg/L DO ASTM D888-09(C) pH (Field) 7.8 SU EPA 150.2 Specific Conductance (Field) 507 umho/cm SM2510B 20.7 °C Temperature SM2550B(2) Turbidity (Hach) 89.2 NTU EPA 180.1

5 Lookup

4 Lookup

27 Lookup

0 Lookup

Observation

Observation

Observation

Observation

Lab ID # : A988975	Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	190 mg/L	10	EPA 310.2
Chloride	22 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	250 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	110 mg/L	1	SM2540D
Solids, Total (TS)	410 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	12 mg/L	1.3	EPA 300.0
COD	50 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	0.28 mg/L	0.05	EPA 365.1
TKN	1.9 mg/L	0.3	SM4500N(Org)-D
TOC	12 mg/L	1	SM5310C
_ab ID # : AB13586	Result	Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 85 of 207

SiteID: LMG-05-0034	Sample Date:	7/23/2013		IDEM Sample #:	AB11734	
Water Flow Type Run	Water	Appearance	Murky	Wa	ter Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flov	w Estimated?		uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	Method
% Sat			91.8	%		SM4500-OG
DO			8.71	mg/L		SM4500-OG
pH (Field)			7.98	SU		EPA 150.2
Specific Conductance (Field)			617	umho/cm		SM2510B
Temperature			17.47	°C		SM2550B(2)
Turbidity			52.2	NTU		SM2130B Mod
Air Temp			4	Lookup		Observation
Sky Conditions			1	Lookup		Observation
Wind Direction			27	Lookup		Observation
Wind Strength			0	Lookup		Observation
SiteID: LMG-05-0034	Sample Date:	8/6/2013		IDEM Sample #:	AB13993	
Water Flow Type Run	Water	Appearance	Clear	Wa	ter Depth	✓ Algae?
		Appearance w Estimated?		Wa Juatic Life?	ter Depth Canopy Closed %	
Water Flow (cf/sec):					•	
Water Flow (cf/sec):					•	
Water Flow (cf/sec): Sampler Comments:			✓ Ac	juatic Life?	Canopy Closed %	0-20%
Nater Flow (cf/sec): Sampler Comments: Lab ID #:			Result	juatic Life?	Canopy Closed %	0-20% Method ASTM D888-09(C)
Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat			Result	yuatic Life? % mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO			Result 89.6 8.74 8.07	yuatic Life? % mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)			Result 89.6 8.74 8.07	% mg/L SU umho/cm	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)			Result 89.6 8.74 8.07 724 16.47	% mg/L SU umho/cm	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature			Result 89.6 8.74 8.07 724 16.47 9.84	% mg/L SU umho/cm °C	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)			Result 89.6 8.74 8.07 724 16.47 9.84 4	% mg/L SU umho/cm °C NTU	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp			Result 89.6 8.74 8.07 724 16.47 9.84 4	% mg/L SU umho/cm °C NTU Lookup	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

1 Lookup

Observation

Tuesday, October 22, 2013 Page 86 of 207

Wind Strength

Lab ID # : A991482		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	-	240 г	mg/L	50	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		360 r	-	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)		470 r	-	10	SM2540B
Solids, Total Dissolved (TDS)		440 r	mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1 r	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.33 ı	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.052 r	-	0.05	EPA 365.1
TKN		0.42 r	-	0.3	SM4500N(Org)-D
TOC		2.4 r	-	1	SM5310C
Lab ID # : AB13993		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		686.7 I	MPN/100mL	1	SM9223B
SiteID: LMG-05-0034 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	I Murky	IDEM Sample :	#: AB12818 /ater Depth	☐ Algae?
Water Flow Type Run	Water Appearance	Murky	V	/ater Depth	_
	•	Murky	-		_
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	Murky	V	/ater Depth	_
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	Murky	Vuatic Life?	/ater Depth Canopy Closed %	0-20%
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Murky Aqu Result	vuatic Life?	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Aqu Result	vuatic Life? % mg/L	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Murky Aqu Result 93.5 9 8.15 1 8.17 5	vuatic Life? % mg/L	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Murky Aqu Result 93.5 9 8.15 1 8.17 5	watic Life? % mg/L SU umho/cm	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Murky Aqu Result 93.5 9 8.15 1 8.17 5 755 0	wuatic Life? % mg/L SU umho/cm °C	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Murky Result 93.5 6 8.15 8 8.17 5 22.09 6 10.8 8	wuatic Life? % mg/L SU umho/cm °C	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Murky Result 93.5 6 8.15 7 55 0 22.09 6 10.8 1 5 1	wuatic Life? % mg/L SU umho/cm °C NTU	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Murky Result 93.5 6 8.15 7 755 0 22.09 6 10.8 1 5 1	wuatic Life? % mg/L SU umho/cm °C NTU Lookup	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Murky Result 93.5 6 8.15 7 755 0 22.09 6 10.8 1 5 1 1 1 18 1	watic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	/ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Murky Result 93.5 6 8.15 7 755 0 22.09 6 10.8 1 5 1 1 1 18 1	wuatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	/ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Murky Result 93.5 9 8.15 8 8.17 9 22.09 9 10.8 1 1 1 18 1 1 1 Result	wuatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation

Tuesday, October 22, 2013 Page 87 of 207

SiteID: LMG-05-0034	Sample Date: 9/10/2013	IDEN	M 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:				
Lab ID #:		Result	Reporting Limit	<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 umh	o/cm	SM2510B
Temperature		17.68 °C		SM2550B(2)
Turbidity (Hach)		16.7 NTU		EPA 180.1
Air Temp		5 Look	rup	Observation
Sky Conditions		1 Look	cup .	Observation
Wind Direction		27 Look	rup	Observation
Wind Strength		1 Look	cup	Observation
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

Tuesday, October 22, 2013 Page 88 of 207

SiteID: LMG-05-0034	Sample Date: 9/	/16/2013	IDEM Samp	ole #: AB12857	
Water Flow Type Run	Water Ap	pearance Mur	ky	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow E	stimated?	Aquatic Life?	Canopy Closed %	0-20%
sampler Comments:					
Lab ID #:		Resi	ılt	Reporting Limit	<u>Method</u>
% Sat		9	2.5 %		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		1	2.5 NTU		SM2130B Mod
Air Temp			4 Lookup		Observation
Sky Conditions			2 Lookup		Observation
Wind Direction			0 Lookup		Observation
Wind Strength			1 Lookup		Observation
L ab ID # : AB12857		Resi	ılt	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 241	9.6 MPN/100mL	2419.6	SM9223B
Collionnis (Total)					
E. coli	Sample Date: 9,		0.4 MPN/100mL		SM9223B
E. coli SiteID: LMG-05-0034	Sample Date: 9,	98/23/2013	IDEM Samp		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0034 Vater Flow Type Run	Water Ap	98/23/2013	IDEM Samp	ole #: AB12896	✓ Algae?
E. coli SiteID: LMG-05-0034	Water Ap	98 /23/2013 pearance Mur	IDEM Samp	ole #: AB12896 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0034 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Ap	98 /23/2013 pearance Mur	IDEM Samp ky Aquatic Life?	ole #: AB12896 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0034 Water Flow Type Run Water Flow (cf/sec): sampler Comments: Lab ID #:	Water Ap	/23/2013 pearance Mur stimated? Resi	IDEM Samp Ky Aquatic Life? Ilt 1.5 %	ole #: AB12896 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0034 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #:	Water Ap	/23/2013 pearance Mur stimated? Resi	IDEM Samp Ky Aquatic Life?	ole #: AB12896 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
iteID: LMG-05-0034 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #:	Water Ap	/23/2013 pearance Mur stimated? Resi	IDEM Samp Ky Aquatic Life? Ilt 1.5 %	ole #: AB12896 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli iitelD: LMG-05-0034 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #: % Sat DO	Water Ap	/23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? Ilt 1.5 % .07 mg/L	ole #: AB12896 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
iteID: LMG-05-0034 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #: % Sat	Water Ap	/23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? Ilt 1.5 % .07 mg/L .04 SU	ole #: AB12896 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
iteID: LMG-05-0034 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #: % Sat	Water Ap	98 /23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? Lit 1.5 % .07 mg/L .04 SU 756 umho/cm	ole #: AB12896 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
iteID: LMG-05-0034 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #: % Sat	Water Ap	98 /23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? ILL 1.5 % .07 mg/L .04 SU 756 umho/cm .71 °C	ole #: AB12896 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0034 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: **Sat** DO** pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Ap	98 /23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? ILL 1.5 % .07 mg/L .04 SU 756 umho/cm .71 °C 0.6 NTU	ole #: AB12896 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0034 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: -ab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Ap	98 /23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? ILt 1.5 % .07 mg/L .04 SU 756 umho/cm .71 °C 0.6 NTU 4 Lookup 1 Lookup	ole #: AB12896 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0034 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Ap	98 /23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? ILL 1.5 % .07 mg/L .04 SU 756 umho/cm .71 °C 0.6 NTU 4 Lookup	ole #: AB12896 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0034 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Ap	98 /23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? ILE 1.5 % .07 mg/L .04 SU 756 umho/cm .71 °C 0.6 NTU 4 Lookup 1 Lookup 27 Lookup 1 Lookup	ole #: AB12896 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0034 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Ap	/23/2013 pearance Mur stimated? Resi	IDEM Samp ky Aquatic Life? ILE 1.5 % .07 mg/L .04 SU 756 umho/cm .71 °C 0.6 NTU 4 Lookup 1 Lookup 27 Lookup 1 Lookup	ole #: AB12896 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 89 of 207

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

Tuesday, October 22, 2013 Page 90 of 207

SiteID:LMG-05-0014USGS Hydrologic Unit:040400010504Stream Name:Tributary of Deep RiverCounty:Lake

Description: 93rd Avenue **Latitude:** 41 26 56.94874 **Longitude:** -87 14 50.29153

Drainage: 3.505 Site Number: 13T-017

SitelD: LMG-05-0014 **Sample Date:** 7/9/2013 **IDEM Sample #:** AB13587

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	<u>Method</u>
% Sat	81.9	%		ASTM D888-09(C)
DO	6.99 r	mg/L		ASTM D888-09(C)
pH (Field)	7.86 \$	SU		EPA 150.2
Specific Conductance (Field)	542 u	umho/cm		SM2510B
Temperature	23.16	°C		SM2550B(2)
Turbidity (Hach)	25.2 1	NTU		EPA 180.1
Air Temp	5 L	Lookup		Observation
Sky Conditions	4 L	Lookup		Observation
Wind Direction	27 l	Lookup		Observation
Wind Strength	0 1	Lookup		Observation
Lab ID # : A988976	<u>Result</u>		Reporting Limit	Method
Alkalinity (as CaCO3)	140 r	mg/L	10	EPA 310.2
Chloride	47 r	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	210 r	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	25 r	mg/L	1	SM2540D
Solids, Total (TS)	360 r	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 r	mg/L	10	SM2540C
Sulfate	37 r	mg/L	1.3	EPA 300.0
COD	24 r	mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 r	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.31 r	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.094 r	mg/L	0.05	EPA 365.1
TKN	0.66 r	mg/L	0.3	SM4500N(Org)-D
TOC	6.3 r	mg/L	1	SM5310C
Lab ID # : AB13587	<u>Result</u>		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1732.9	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 91 of 207

SiteID: LMG-05-0014	Sample Date: 7/23/2013	IDEM Samp	ole #: AB11735	
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	<u>Method</u>
% Sat		72.3 %		SM4500-OG
DO		6.36 mg/L		SM4500-OG
pH (Field)		7.78 SU		EPA 150.2
Specific Conductance (Field)		596 umho/cm		SM2510B
Temperature		20.93 °C		SM2550B(2)
Turbidity		10.8 NTU		SM2130B Mod
Air Temp		4 Lookup		Observation
Sky Conditions		1 Lookup		Observation
Wind Direction		27 Lookup		Observation
Willia Direction				
Wind Strength SiteID: LMG-05-0014	Sample Date: 8/6/2013	0 Lookup	ble #: AB13994	Observation
Wind Strength	Sample Date: 8/6/2013 Water Appearance	0 Lookup	ole #: AB13994 Water Depth	Observation Algae?
Wind Strength SiteID: LMG-05-0014 Water Flow Type Run	·	0 Lookup		✓ Algae?
Wind Strength SiteID: LMG-05-0014	Water Appearance	0 Lookup IDEM Samp	Water Depth	✓ Algae?
Wind Strength SiteID: LMG-05-0014 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	0 Lookup IDEM Samp	Water Depth	✓ Algae?
Wind Strength SiteID: LMG-05-0014 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	0 Lookup IDEM Samp Clear Aquatic Life?	Water Depth Canopy Closed %	Algae? 0-20% Method
Wind Strength SiteID: LMG-05-0014 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	O Lookup IDEM Samp Clear Aquatic Life? Result	Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C
Wind Strength SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	O Lookup IDEM Samp Clear Aquatic Life? Result 82.6 %	Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C
Wind Strength SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	O Lookup IDEM Samp Clear Aquatic Life? Result 82.6 % 7.8 mg/L	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Wind Strength SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	O Lookup IDEM Samp Clear Aquatic Life? Result 82.6 % 7.8 mg/L 7.93 SU	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Wind Strength SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	O Lookup IDEM Samp Clear Aquatic Life? Result 82.6 % 7.8 mg/L 7.93 SU 676 umho/cm	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Wind Strength SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	O Lookup IDEM Samp Clear Aquatic Life? Result 82.6 % 7.8 mg/L 7.93 SU 676 umho/cm 18.02 °C	Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Wind Strength SiteID: LMG-05-0014 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	0 Lookup IDEM Samp Clear Aquatic Life? Result 82.6 % 7.8 mg/L 7.93 SU 676 umho/cm 18.02 °C 5.73 NTU	Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1
Wind Strength SiteID: LMG-05-0014 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Clear Aquatic Life? Result 82.6 % 7.8 mg/L 7.93 SU 676 umho/cm 18.02 °C 5.73 NTU 5 Lookup	Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2550B SM2550B(2) EPA 180.1 Observation

Tuesday, October 22, 2013 Page 92 of 207

Lab ID # : A991483		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		170	mg/L	50	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1	-	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.077	-	0.01	EPA 353.2
Phosphorus, Total		< 0.05	-	0.05	EPA 365.1
TKN		< 0.3	-	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB13994		<u>Result</u>		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		613.1	MPN/100mL	1	SM9223B
SiteID: LMG-05-0014 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear	IDEM Sample	#: AB12819 Vater Depth	☐ Algae?
SiteID: LMG-05-0014 Water Flow Type Run Water Flow (cf/sec):	•		_		_
SiteID: LMG-05-0014 Water Flow Type Run	Water Appearance		V	Vater Depth	_
SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	_
SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Aq	V uatic Life?	Vater Depth Canopy Closed %	0-20%
SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V uatic Life?	Vater Depth Canopy Closed %	0-20%
SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 89.3 7.85 7.97	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 89.3 7.85 7.97	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 89.3 7.85 7.97 725 21.63	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0014 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 89.3 7.85 7.97 725 21.63 6.4	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0014 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 89.3 7.85 7.97 725 21.63 6.4 5	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 89.3 7.85 7.97 725 21.63 6.4 5	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0014 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 89.3 7.85 7.97 725 21.63 6.4 5 1 18	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0014 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 89.3 7.85 7.97 725 21.63 6.4 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0014 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 89.3 7.85 7.97 725 21.63 6.4 5 1 88 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 93 of 207

SiteID: LMG-05-0014 Sample Date: 9/10/2013 IDEM Sample #: AB14610 **Water Depth** ✓ Algae? Water Flow Type Glide Water Appearance Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 69.5 % ASTM D888-09(C) % Sat 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 Observation 27 Lookup 1 Lookup Wind Strength Observation Lab ID #: A994700 **Reporting Limit** Result **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/L0.1 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 SM5310C 1

Tuesday, October 22, 2013 Page 94 of 207

SiteID: LMG-05-0014	Sample Date:	9/16/2013		IDEM Sampl	e #: AB12858	
Water Flow Type Run	Water A	Appearance	Clear		Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow	Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
000(10.0.)						
E. coli	Sample Date:	9/23/2013	579.4	MPN/100mL	1 e # : AB12897	SM9223B
E. coli SiteID: LMG-05-0014	Sample Date:	9/23/2013 Appearance	579.4 Clear	MPN/100mL		SM9223B
E. coli SiteID: LMG-05-0014 Vater Flow Type Run	Water		Clear		e # : AB12897	☐ Algae?
E. coli SiteID: LMG-05-0014	Water	Appearance	Clear	IDEM Sampl	e #: AB12897 Water Depth	☐ Algae?
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	Clear	IDEM Sampl	e #: AB12897 Water Depth	☐ Algae?
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	Clear ✓ Aq	IDEM Sampl quatic Life?	e #: AB12897 Water Depth Canopy Closed %	☐ Algae? 0-20%
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #:	Water	Appearance	Clear ✓ Aq Result	IDEM Sampl quatic Life?	e #: AB12897 Water Depth Canopy Closed %	☐ Algae? 0-20% Method
E. coli SiteID: LMG-05-0014 Water Flow Type Run Water Flow (cf/sec): sampler Comments: Lab ID #:	Water	Appearance	Clear ✓ Aq Result	IDEM Sampl quatic Life? % mg/L	e #: AB12897 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Clear Result 91.2 9.38 7.95	IDEM Sampl quatic Life? % mg/L	e #: AB12897 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	Clear Result 91.2 9.38 7.95	IDEM Sampl quatic Life? % mg/L SU umho/cm	e #: AB12897 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Clear Result 91.2 9.38 7.95 689 13.97	IDEM Sampl quatic Life? % mg/L SU umho/cm	e #: AB12897 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Clear ✓ Aq Result 91.2 9.38 7.95 689 13.97 7.9	Muatic Life? % mg/L SU umho/cm °C	e #: AB12897 Water Depth Canopy Closed %	☐ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat **DO **pH (Field) **Specific Conductance (Field) **Temperature **Turbidity	Water	Appearance	Clear ✓ Aq Result 91.2 9.38 7.95 689 13.97 7.9 4	## Composition of the compositio	e #: AB12897 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Base	Water	Appearance	Clear Result 91.2 9.38 7.95 689 13.97 7.9 4	Muatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12897 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water	Appearance	Clear Result 91.2 9.38 7.95 689 13.97 7.9 4 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12897 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SitelD: LMG-05-0014 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Clear Result 91.2 9.38 7.95 689 13.97 7.9 4 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12897 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0014 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 91.2 9.38 7.95 689 13.97 7.9 4 1 27 1 Result	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12897 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 95 of 207

	Weather Code Definitions							
S	C		WD	WS	AT			
Sky Co	nditions	1	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				

Tuesday, October 22, 2013 Page 96 of 207

 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:** 7/9/2013 **IDEM Sample #:** AB13588

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	<u>Method</u>
% Sat	59 (%		ASTM D888-09(C)
DO	5.14 ı	mg/L		ASTM D888-09(C)
pH (Field)	7.49	SU		EPA 150.2
Specific Conductance (Field)	635	umho/cm		SM2510B
Temperature	22.14	°C		SM2550B(2)
Turbidity (Hach)	16.1	NTU		EPA 180.1
Air Temp	5 1	Lookup		Observation
Flow	45.0057	cf/sec		TM D5389-95/D3858
Sky Conditions	4 1	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1 1	Lookup		Observation
Lab ID # : A988977	<u>Result</u>		Reporting Limit	Method
Alkalinity (as CaCO3)	150 ו	mg/L	10	EPA 310.2
Chloride	66 ।	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	220 ו	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	22 ו	mg/L	1	SM2540D
Solids, Total (TS)	410 ו	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 ı	mg/L	10	SM2540C
Sulfate	35 ।	mg/L	1.3	EPA 300.0
COD	36 ।	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.17 ı	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3 1	mg/L	0.05	EPA 353.2
Phosphorus, Total	0.27	mg/L	0.05	EPA 365.1
TKN	1.3 ı	mg/L	0.3	SM4500N(Org)-D
TOC	9.6 ।	mg/L	1	SM5310C
Lab ID #: AB13588	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6	MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 97 of 207

SiteID: LMG-05-0015 Sample Date: 7/23/2013 IDEM Sample #: AB11736 ✓ Algae? Water Flow Type Run Water Appearance Murky Water Depth ✓ Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 64.8 % SM4500-OG % Sat DO 5.4 mg/L SM4500-OG 7.58 SU pH (Field) EPA 150.2 Specific Conductance (Field) 700 umho/cm SM2510B Temperature 23.08 °C SM2550B(2) **Turbidity** 5.28 NTU SM2130B Mod Air Temp 4 Lookup Observation 3 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: LMG-05-0015 Sample Date: IDEM Sample #: AB13995 8/6/2013 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 73.1 % ASTM D888-09(C) % Sat DO 6.72 mg/L ASTM D888-09(C) pH (Field) 7.76 SU EPA 150.2 Specific Conductance (Field) 737 umho/cm SM2510B 19.4 °C Temperature SM2550B(2) Turbidity (Hach) 5.59 NTU EPA 180.1 Air Temp 5 Lookup Observation Flow 8.1597 cf/sec TM D5389-95/D3858 Sky Conditions 4 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 98 of 207

Lab ID # : A991484		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		170	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.2	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB13995		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		866.4	MPN/100mL	1	SM9223B
SiteID: LMG-05-0015 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear		Vater Depth	☐ Algae?
	·		_		
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 84.1	v quatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 84.1 7.21	v quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 84.1 7.21 7.78	yuatic Life? % mg/L SU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 84.1 7.21 7.78 824	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 84.1 7.21 7.78 824 22.97	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 84.1 7.21 7.78 824 22.97 4.6	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 84.1 7.21 7.78 824 22.97 4.6 5	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 84.1 7.21 7.78 824 22.97 4.6 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 84.1 7.21 7.78 824 22.97 4.6 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 84.1 7.21 7.78 824 22.97 4.6 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 84.1 7.21 7.78 824 22.97 4.6 5 1 18	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 84.1 7.21 7.78 824 22.97 4.6 5 1 18 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 99 of 207

SiteID: LMG-05-0015	Sample Date: 9/10/2013	IDE	M Sample #: AB14611	
Water Flow Type Glide	Water Appearance	Clear	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquati	c Life? Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<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 umh	no/cm	SM2510B
Temperature		23.07 °C		SM2550B(2)
Turbidity (Hach)		7.37 NTU	J	EPA 180.1
Air Temp		5 Loo	kup	Observation
Flow		6.4683 cf/s	ec	TM D5389-95/D3858
Sky Conditions		1 Loo	kup	Observation
Wind Direction		27 Loo	kup	Observation
Wind Strength		2 Loo	kup	Observation
Lab ID # : A994701		Result	Reporting Limit	<u>Method</u>
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/		SM2540C
Sulfate		53 mg/		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/		EPA 365.1
TKN		0.48 mg/	L 0.3	SM4500N(Org)-D
TOC		5.5 mg/	L 2	SM5310C

Tuesday, October 22, 2013 Page 100 of 207

SiteID: LMG-05-0015	Sample Date:	9/16/2013		IDEM Sample	e #: AB12859	
Water Flow Type Run	Water A	Appearance	Clear		Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow	Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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
Comornia (Total)			110.0			
E. coli	Sample Date:	9/23/2013		MPN/100mL	1 e#: AB12898	SM9223B
E. coli SiteID: LMG-05-0015	Sample Date:	9/23/2013 Appearance		IDEM Sampl		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0015 Vater Flow Type Run	Water A		1046.2	IDEM Sampl	e # : AB12898	✓ Algae?
E. coli SiteID: LMG-05-0015	Water A	Appearance	1046.2	IDEM Sampl	e #: AB12898 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water A	Appearance	1046.2	IDEM Sampl	e #: AB12898 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments:	Water A	Appearance	Clear	IDEM Sampl	e #: AB12898 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli itelD: LMG-05-0015 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #:	Water A	Appearance	Clear Aq	IDEM Sampl	e #: AB12898 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat	Water A	Appearance	Clear Aq	IDEM Sample uatic Life? % mg/L	e #: AB12898 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO	Water A	Appearance	Clear Aq Result 79.3 7.93 7.72	IDEM Sample uatic Life? % mg/L	e #: AB12898 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field)	Water A	Appearance	Clear Aq Result 79.3 7.93 7.72	Muatic Life? % mg/L SU umho/cm	e #: AB12898 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli iitelD: LMG-05-0015 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #: % Sat	Water A	Appearance	Clear Result 79.3 7.93 7.72 762 15.27	Muatic Life? % mg/L SU umho/cm	e #: AB12898 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water A	Appearance	Clear Result 79.3 7.93 7.72 762 15.27 3	"We mg/L SU umho/cm °C	e #: AB12898 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat **DO **pH (Field) **Specific Conductance (Field) **Temperature **Turbidity	Water A	Appearance	Clear Result 79.3 7.93 7.72 762 15.27 3 4	Wmg/LSU umho/cm°CNTU	e #: AB12898 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: -ab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water A	Appearance	Clear Result 79.3 7.93 7.72 762 15.27 3 4 1	"We will be supposed to the su	e #: AB12898 Water Depth Canopy Closed %	■ Algae? 0-20% Method
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: -ab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water A	Appearance	Clear Result 79.3 7.93 7.72 762 15.27 3 4 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12898 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0015 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water A	Appearance	Clear Result 79.3 7.93 7.72 762 15.27 3 4 1 27	"C" NTU Lookup Lookup Lookup	e #: AB12898 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0015 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water A	Appearance	Clear Result 79.3 7.72 762 15.27 3 4 1 27 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12898 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 101 of 207

Weather Code Definitions								
SC WD WS AT Sky Conditions Wind Direction Wind Strength Air Tem								
Sky Co	nditions	1	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				

Tuesday, October 22, 2013 Page 102 of 207

SiteID:LMG-05-0035USGS Hydrologic Unit:040400010504Stream Name:Deer CreekCounty:Lake

Description: 97th Avenue **Latitude:** 41 26 30.93013 **Longitude:** -87 16 12.66699

Drainage: 5.883 **Site Number:** 13T-019

SitelD: LMG-05-0035 **Sample Date:** 7/9/2013 **IDEM Sample #:** AB13589

Water Flow Type Run Water Appearance Murky Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	39.2 %	1		ASTM D888-09(C)
DO	3.39 m	g/L		ASTM D888-09(C)
pH (Field)	7.24 SI	U		EPA 150.2
Specific Conductance (Field)	579 un	nho/cm		SM2510B
Temperature	22.55 °C)		SM2550B(2)
Turbidity (Hach)	71.3 N	TU		EPA 180.1
Air Temp	5 Lo	ookup		Observation
Sky Conditions	4 Lo	ookup		Observation
Wind Direction	27 Lo	ookup		Observation
Wind Strength	0 Lo	ookup		Observation
Lab ID # : A988979	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	120 m	g/L	10	EPA 310.2
Chloride	57 m	g/L	1.3	EPA 300.0
Hardness (as CaCO3)	210 m	g/L	1	SM2340B
Solids, Suspended Total, (TSS)	92 m	g/L	1	SM2540D
Solids, Total (TS)	470 m	g/L	10	SM2540B
Solids, Total Dissolved (TDS)	330 mg	g/L	10	SM2540C
Sulfate	42 m	g/L	1.3	EPA 300.0
COD	64 m	g/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 m	g/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.81 m	g/L	0.01	EPA 353.2
Phosphorus, Total	0.46 m	g/L	0.05	EPA 365.1
TKN	2.1 m	g/L	0.3	SM4500N(Org)-D
TOC	13 m	g/L	5	SM5310C
Lab ID # : AB13589	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6 M	PN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MI	PN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 103 of 207

SiteID: LMG-05-0035	Sample Date: 7/23/2013	IDEM Sam	ple #: AB11737	
Water Flow Type Run	Water Appearance	Murky	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments: Hach R	eading "99.9": turbidity not taken	due to water disturbed	by sampling	
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		45.2 %		SM4500-OG
DO		4.02 mg/L		SM4500-OG
pH (Field)		7.59 SU		EPA 150.2
Specific Conductance (Field)		677 umho/cm		SM2510B
Temperature		23.78 °C		SM2550B(2)
Turbidity		NTU		SM2130B Mod
Air Temp		4 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength SiteID: LMG-05-0035	Sample Date: 8/6/2013	1 Lookup	ple # : AB13996	Observation
Wind Strength SiteID: LMG-05-0035 Water Flow Type Run	Sample Date: 8/6/2013 Water Appearance	1 Lookup IDEM Sam Clear	ple #: AB13996 Water Depth	Observation Algae?
SiteID: LMG-05-0035	•	IDEM Sam		✓ Algae?
SiteID: LMG-05-0035 Water Flow Type Run	Water Appearance	IDEM Sam	Water Depth	✓ Algae?
SiteID: LMG-05-0035 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water Appearance	IDEM Sam	Water Depth	✓ Algae?
SiteID: LMG-05-0035 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water Appearance	IDEM Sam Clear Aquatic Life?	Water Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Sam Clear Aquatic Life? Result	Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Sam Clear Aquatic Life? Result 60 %	Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO	Water Appearance	IDEM Sam Clear Aquatic Life? Result 60 % 5.46 mg/L	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	IDEM Sam Clear Aquatic Life? Result 60 % 5.46 mg/L 7.58 SU	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	IDEM Sam Clear Aquatic Life? Result 60 % 5.46 mg/L 7.58 SU 717 umho/cm	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	IDEM Sam Clear Aquatic Life? Result 60 % 5.46 mg/L 7.58 SU 717 umho/cm 20.01 °C	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Sam Clear Aquatic Life? Result 60 % 5.46 mg/L 7.58 SU 717 umho/cm 20.01 °C 8.48 NTU	Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: LMG-05-0035 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear	Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2550B SM2550B(2) EPA 180.1 Observation

Tuesday, October 22, 2013 Page 104 of 207

Lab ID # : A991485		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		180	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB13996		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		228.2	MPN/100mL	1	SM9223B
SiteID: LMG-05-0035 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear	IDEM Sample	#: AB12821 Vater Depth	✓ Algae?
SiteID: LMG-05-0035	·		-		
SiteID: LMG-05-0035 Water Flow Type Run	Water Appearance		V	Vater Depth	
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Aq	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V Juatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 66.6 5.56 7.78	vuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 66.6 5.56 7.78	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0035 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 66.6 5.56 7.78 832 24.31	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 66.6 5.56 7.78 832 24.31 5.4	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0035 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 66.6 5.56 7.78 832 24.31 5.4 5	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 66.6 5.56 7.78 832 24.31 5.4 5	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0035 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 66.6 5.56 7.78 832 24.31 5.4 5 1	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0035 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result 66.6 5.56 7.78 832 24.31 5.4 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0035 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 66.6 5.56 7.78 832 24.31 5.4 5 1 18 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 105 of 207

SiteID: LMG-05-0035	Sample Date: 9/10/2013	IDEM San	nple #: 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	<u>Method</u>
% 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
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

Tuesday, October 22, 2013 Page 106 of 207

SiteID: LMG-05-0035	Sample Date:	9/16/2013		IDEM Sample	e #: AB12860	
Water Flow Type Run	Water	Appearance	Clear		Water Depth	☐ Algae?
Water Flow (cf/sec):	Flow	v Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	Method
% Sat			69.2	%		ASTM D888-09(C)
DO				mg/L		ASTM D888-09(C)
pH (Field)			7.83	SU		EPA 150.2
Specific Conductance (Field)				umho/cm		SM2510B
Temperature			16.82			SM2550B(2)
Turbidity			4.3	NTU		SM2130B Mod
Air Temp			4	Lookup		Observation
Sky Conditions				Lookup		Observation
Wind Direction			0	Lookup		Observation
Wind Strength			1	Lookup		Observation
Lab ID#: AB12860			Result		Reporting Limit	Method
California (Total)			> 2419 6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)			110.0			
E. coli	Sample Date:	0/23/2013		MPN/100mL	1 0 #* AB12899	SM9223B
E. coli SiteID: LMG-05-0035	Sample Date:	9/23/2013 Appearance		IDEM Sampl		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0035 Vater Flow Type Run	Water		686.7	IDEM Sampl	e # : AB12899	✓ Algae?
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec):	Water	Appearance	686.7	IDEM Sampl	e #: AB12899 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	686.7	IDEM Sampl	e #: AB12899 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	Clear	IDEM Sampl	e #: AB12899 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli itelD: LMG-05-0035 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #:	Water	Appearance	Clear Aq Result	IDEM Sampl	e #: AB12899 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result	IDEM Sample quatic Life? % mg/L	e #: AB12899 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO	Water	Appearance	Clear Aq Result 66.1 6.53 7.46	IDEM Sample quatic Life? % mg/L	e #: AB12899 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	Clear Aq Result 66.1 6.53 7.46	IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12899 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Clear Result 66.1 6.53 7.46 706 15.91	IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12899 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Clear Result 66.1 6.53 7.46 706 15.91 8.3	Muatic Life? % mg/L SU umho/cm °C	e #: AB12899 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat **DO **pH (Field) **Specific Conductance (Field) **Temperature **Turbidity	Water	Appearance	Clear Result 66.1 6.53 7.46 706 15.91 8.3 4	Multic Life? % mg/L SU umho/cm °C NTU	e #: AB12899 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Base	Water	Appearance	Clear Result 66.1 6.53 7.46 706 15.91 8.3 4 1	Muatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12899 Water Depth Canopy Closed %	■ Algae? 0-20% Method
E. coli iitelD: LMG-05-0035 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #: % Sat	Water	Appearance	Clear Result 66.1 6.53 7.46 706 15.91 8.3 4 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12899 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0035 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Clear Result 66.1 6.53 7.46 706 15.91 8.3 4 1 27	"C" NTU Lookup Lookup Lookup	e #: AB12899 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0035 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 66.1 6.53 7.46 706 15.91 8.3 4 1 27 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12899 Water Depth Canopy Closed % Reporting Limit	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 107 of 207

Weather Code Definitions								
SC WD WS AT								
Sky Co	nditions	1	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				

Tuesday, October 22, 2013 Page 108 of 207

SiteID:LMG-05-0016USGS Hydrologic Unit:040400010502Stream Name:Niles DitchCounty:Lake

Description: Colorado Street Latitude: 41 25 25.12623 Longitude: -87 17 48.02873

Drainage: 10.029 **Site Number:** 13T-020

SitelD: LMG-05-0016 **Sample Date:** 7/9/2013 **IDEM Sample #:** AB13591

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	<u>Method</u>
% Sat	22.1	%		ASTM D888-09(C)
DO	1.93	mg/L		ASTM D888-09(C)
pH (Field)	7.39	SU		EPA 150.2
Specific Conductance (Field)	750	umho/cm		SM2510B
Temperature	22.21	°C		SM2550B(2)
Turbidity (Hach)	35.3	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	0	Lookup		Observation
Lab ID # : A988980	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	190	mg/L	10	EPA 310.2
Chloride	43	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	330	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	12	mg/L	1	SM2540D
Solids, Total (TS)	500	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420	mg/L	10	SM2540C
Sulfate	42	mg/L	1.3	EPA 300.0
COD	61	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.52	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.7	mg/L	0.05	EPA 353.2
Phosphorus, Total	0.57	mg/L	0.05	EPA 365.1
TKN	2.6	mg/L	0.3	SM4500N(Org)-D
TOC	17	mg/L	5	SM5310C
Lab ID # : AB13591	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6	MPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 109 of 207

SiteID: LMG-05-0016 Sample Date: 7/23/2013 IDEM Sample #: AB11738 **Water Depth** ☐ Algae? Water Flow Type Glide Water Appearance Murky ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Hach reading "99.9" Q-2 turbidity = 16.3 Winkler #3 1.3 mg/l (twice) Lab ID #: Result **Reporting Limit** Method % Sat 36.3 % SM4500-OG DO 3.12 mg/L SM4500-OG pH (Field) 7.14 SU EPA 150.2 Specific Conductance (Field) 790 umho/cm SM2510B SM2550B(2) Temperature 23.25 °C 16.3 NTU Turbidity SM2130B Mod Air Temp 4 Lookup Observation Sky Conditions 4 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 2 Lookup Observation SiteID: LMG-05-0016 8/6/2013 IDEM Sample #: AB13998 Sample Date: ✓ Algae? Clear **Water Depth Water Flow Type** Water Appearance ✓ Aquatic Life? Water Flow (cf/sec): ☐ Flow Estimated? Canopy Closed % 0-20% **Sampler Comments:**

ab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	11.1 '	%		ASTM D888-09(C)
DO	1.02 ו	mg/L		ASTM D888-09(C)
pH (Field)	7.32	SU		EPA 150.2
Specific Conductance (Field)	984 (umho/cm		SM2510B
Temperature	19.01	°C		SM2550B(2)
Turbidity (Hach)	6.63	NTU		EPA 180.1
Air Temp	5 1	Lookup		Observation
Sky Conditions	4 1	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1 !	Lookup		Observation

Tuesday, October 22, 2013 Page 110 of 207

Lab ID #: A991486		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		270	mg/L	50	EPA 310.2
Chloride			mg/L	2.5	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate		100	mg/L	2.5	EPA 300.0
COD		29	mg/L	10	EPA 410.4
Nitrogen, Ammonia		0.43	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.013	mg/L	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	5	SM5310C
Lab ID # : AB13998		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
		156.5	MPN/100mL	1	SM9223B
E. coli SiteID: LMG-05-0016 Water Flow Type Run	Sample Date: 9/9/2013 Water Appearance	Clear	IDEM Sample	#: AB12823 Vater Depth	☐ Algae?
SiteID: LMG-05-0016 Water Flow Type Run	Water Appearance	Clear	IDEM Sample	Vater Depth	_
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec):	·	Clear	IDEM Sample		_
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Dam up	Water Appearance Flow Estimated?	Clear	IDEM Sample	Vater Depth	_
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Dam up	Water Appearance Flow Estimated?	Clear	IDEM Sample V Juatic Life?	Vater Depth Canopy Closed %	0-20% <u>Method</u>
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Dam up: Lab ID #:	Water Appearance Flow Estimated?	Clear Aq Result	IDEM Sample V Juatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0016 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Dam up: Lab ID #:	Water Appearance Flow Estimated?	Clear Aq Result	IDEM Sample V quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% <u>Method</u>
SiteID: LMG-05-0016 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat DO	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27	IDEM Sample V quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0016 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat DO pH (Field)	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27	IDEM Sample V Juatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27 983 19.6	IDEM Sample V Juatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27 983 19.6 6.1	IDEM Sample V quatic Life? % mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0016 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27 983 19.6 6.1 6	IDEM Sample V quatic Life? % mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27 983 19.6 6.1 6 1	IDEM Sample V quatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0016 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27 983 19.6 6.1 6 1 18	IDEM Sample V quatic Life? % mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27 983 19.6 6.1 6 1 18	Muatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Dam up: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance Flow Estimated?	Clear Result 10.3 0.95 7.27 983 19.6 6.1 6 1 18 1 Result	Muatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 111 of 207

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	<u>Method</u>
% 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
Lab ID # : A994703	Result		Reporting Limit	<u>Method</u>
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

Tuesday, October 22, 2013 Page 112 of 207

SiteID: LMG-05-0016	Sample Date:	9/16/2013		IDEM Sampl	e#: AB12862	
Water Flow Type Run	Water A	Appearance	Murky		Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow	Estimated?	☐ Aq	juatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
Collioinis (Total)						
E. coli	Sample Date:	0/23/2013		MPN/100mL	1 a.#: AB12901	SM9223B
E. coli SiteID: LMG-05-0016	Sample Date:	9/23/2013 Appearance		MPN/100mL IDEM Sampl		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0016 Vater Flow Type Run	Water		920.8		e#: AB12901	✓ Algae?
E. coli SiteID: LMG-05-0016 Water Flow Type Run Water Flow (cf/sec):	Water	Appearance	920.8	IDEM Sampl	e #: AB12901 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	920.8	IDEM Sampl	e #: AB12901 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	920.8 Clear Aq	IDEM Sampl quatic Life?	e #: AB12901 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result	IDEM Sampl quatic Life?	e #: AB12901 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result	IDEM Sampl quatic Life? % mg/L	e #: AB12901 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	920.8 Clear Aq Result 19.9 1.97 7.29	IDEM Sampl quatic Life? % mg/L	e #: AB12901 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	920.8 Clear Aq Result 19.9 1.97 7.29	IDEM Sampl Juatic Life? % mg/L SU umho/cm	e #: AB12901 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	P20.8 Clear Aq Result 19.9 1.97 7.29 939 15.95	IDEM Sampl Juatic Life? % mg/L SU umho/cm	e #: AB12901 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	920.8 Clear Aq Result 19.9 1.97 7.29 939 15.95 9.9	JUEM Sampl Juatic Life? % mg/L SU umho/cm °C	e #: AB12901 Water Depth Canopy Closed %	✓ Algae? • 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water	Appearance	920.8 Clear Aq Result 19.9 1.97 7.29 939 15.95 9.9 4	### Sampl ### Sumpl ### SU ### Umho/cm **C NTU	e #: AB12901 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water	Appearance	920.8 Clear Aq Result 19.9 1.97 7.29 939 15.95 9.9 4 1	JUEM Sampl Juatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12901 Water Depth Canopy Closed %	✓ Algae? . 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SitelD: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water	Appearance	920.8 Clear Aq Result 19.9 1.97 7.29 939 15.95 9.9 4 1 27	"We will be something to the second s	e #: AB12901 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SitelD: LMG-05-0016 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	920.8 Clear Aq Result 19.9 1.97 7.29 939 15.95 9.9 4 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12901 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0016 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	920.8 Clear Aq Result 19.9 1.97 7.29 939 15.95 9.9 4 1 27 1 Result	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12901 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 113 of 207

Weather Code Definitions								
SC WD WS AT Sky Conditions Wind Direction Wind Strength Air Tem								
Sky Co	nditions	1	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				

Tuesday, October 22, 2013 Page 114 of 207

SiteID:LMG-05-0017USGS Hydrologic Unit:040400010502Stream Name:Niles DitchCounty: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**: 7/9/2013 **IDEM Sample #**: AB13592

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	<u>Method</u>
% Sat	13.8	%		ASTM D888-09(C)
DO	1.21	mg/L		ASTM D888-09(C)
pH (Field)	7.28	SU		EPA 150.2
Specific Conductance (Field)	780	umho/cm		SM2510B
Temperature	21.87	°C		SM2550B(2)
Turbidity (Hach)	10.9	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988981	<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	190	mg/L	10	EPA 310.2
Chloride	77	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	260	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	3	mg/L	1	SM2540D
Solids, Total (TS)	480	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400	mg/L	10	SM2540C
Sulfate	39	mg/L	1.3	EPA 300.0
COD	34	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.62	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.6	mg/L	0.05	EPA 353.2
Phosphorus, Total	0.24	mg/L	0.05	EPA 365.1
TKN	1.8	mg/L	0.3	SM4500N(Org)-D
TOC	10	mg/L	1	SM5310C
Lab ID # : AB13592	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	410.6	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 115 of 207

SiteID: LMG-05-0017	Sample Date: 7/23/2013	IDEM S	ample #: AB11739	
Water Flow Type Stagnant	Water Appearance	Clear	Water Depth	☐ Algae?
Water Flow (cf/sec):	☐ Flow Estimated	? Aquatic Lif	e? Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	Method
% Sat		4.78 %		SM4500-OG
DO		2.15 mg/L		SM4500-OG
pH (Field)		7.15 SU		EPA 150.2
Specific Conductance (Field)		986 umho/cr	n	SM2510B
Temperature		25.21 °C		SM2550B(2)
Turbidity		NTU		SM2130B Mod
Air Temp		5 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength	Somple Date: 9/6/2012	1 Lookup	omple #: AP12000	Observation
Wind Strength SiteID: LMG-05-0017 Water Flow Type Glide	Sample Date: 8/6/2013 Water Appearance	IDEM S	ample #: AB13999 Water Depth	Observation ✓ Algae?
SiteID: LMG-05-0017 Water Flow Type Glide	•	IDEM S	Water Depth	✓ Algae?
SiteID: LMG-05-0017 Water Flow Type Glide Water Flow (cf/sec):	Water Appearance	IDEM S	Water Depth	✓ Algae?
SiteID: LMG-05-0017 Water Flow Type Glide Water Flow (cf/sec):	Water Appearance	IDEM S	Water Depth	✓ Algae?
SiteID: LMG-05-0017 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments:	Water Appearance	IDEM Sacceler Aquatic Life	Water Depth e? Canopy Closed %	✓ Algae? o 0-20% Method
SiteID: LMG-05-0017 Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Sacretar Clear Aquatic Lif	Water Depth e? Canopy Closed %	✓ Algae? 5 0-20% Method ASTM D888-09(C
SiteID: LMG-05-0017 Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Sa Clear Aquatic Lif Result 37.6 %	Water Depth e? Canopy Closed %	✓ Algae? 5 0-20% Method ASTM D888-09(C
SiteID: LMG-05-0017 Vater Flow Type Glide Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Solution Clear Result 37.6 % 3.15 mg/L	Water Depth e? Canopy Closed % Reporting Limit	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C
SiteID: LMG-05-0017 Vater Flow Type Glide Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aquatic Lift Result 37.6 % 3.15 mg/L 7.55 SU	Water Depth e? Canopy Closed % Reporting Limit	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2
SiteID: LMG-05-0017 Vater Flow Type Glide Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Clear Aquatic Lif Result 37.6 % 3.15 mg/L 7.55 SU 715 umho/cr	Water Depth e? Canopy Closed % Reporting Limit	✓ Algae? Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B
SiteID: LMG-05-0017 Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Clear Aquatic Lif Result 37.6 % 3.15 mg/L 7.55 SU 715 umho/cr 21.34 °C	Water Depth e? Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0017 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	IDEM Solution Clear Aquatic Life Result 37.6 % 3.15 mg/L 7.55 SU 715 umho/cr 21.34 °C 6.79 NTU	Water Depth e? Canopy Closed % Reporting Limit	✓ Algae? Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: LMG-05-0017 Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	IDEM Solution Clear Aquatic Lift Result 37.6 % 3.15 mg/L 7.55 SU 715 umho/cr 21.34 °C 6.79 NTU 5 Lookup	Water Depth e? Canopy Closed % Reporting Limit	✓ Algae? Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

Tuesday, October 22, 2013 Page 116 of 207

Lab ID # : A991487		<u>R</u> (<u>esult</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)			280	mg/L	50	EPA 310.2
Chloride				mg/L	1.3	EPA 300.0
Hardness (as CaCO3)				mg/L	1	SM2340B
Solids, Suspended Total, (TSS)				mg/L	1	SM2540D
Solids, Total (TS)			480	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			440	mg/L	10	SM2540C
Sulfate			50	mg/L	1.3	EPA 300.0
COD			32	mg/L	10	EPA 410.4
Nitrogen, Ammonia			0.44	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			0.057	mg/L	0.01	EPA 353.2
Phosphorus, Total			0.42	mg/L	0.05	EPA 365.1
TKN			1.1	mg/L	0.3	SM4500N(Org)-D
TOC			8.5	mg/L	1	SM5310C
Lab ID # : AB13999		<u>R</u> (<u>esult</u>		Reporting Limit	Method
			2440.0	MPN/100mL	2419.6	SM9223B
Coliforms (Total)		> 2	2419.6	IVII IN/ TOOTTIL	2413.0	002202
Coliforms (Total) E. coli		> 2		MPN/100mL	1	SM9223B
	Sample Date: 9/1 Water Appe	0/2013	118.7	MPN/100mL IDEM Sample	1	
E. coli SiteID: LMG-05-0017	•	0/2013 earance B	118.7	MPN/100mL IDEM Sample	1 #: AB14615	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0017 Nater Flow Type Pool	Water Appe	0/2013 earance B	118.7	MPN/100mL IDEM Sample :	1 #: AB14615 Vater Depth	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0017 Nater Flow Type Pool Nater Flow (cf/sec):	Water Appe	0/2013 earance E timated?	118.7	MPN/100mL IDEM Sample :	1 #: AB14615 Vater Depth	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0017 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments:	Water Appe	0/2013 earance E timated?	118.7	MPN/100mL IDEM Sample : W uatic Life?	#: AB14615 Vater Depth Canopy Closed %	SM9223B ✓ Algae? 0-20%
E. coli SiteID: LMG-05-0017 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appe	0/2013 earance E timated?	118.7 Black Aquenta	MPN/100mL IDEM Sample : Wuatic Life?	#: AB14615 Vater Depth Canopy Closed %	SM9223B Algae? 0-20% Method
E. coli SiteID: LMG-05-0017 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appe	0/2013 earance E timated?	118.7 Black Aqu esult 2.7	MPN/100mL IDEM Sample: Wuatic Life? % mg/L	#: AB14615 Vater Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0017 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appe	0/2013 earance E timated?	118.7 Black Aqu esult 2.7 0.24 7.16	MPN/100mL IDEM Sample: Wuatic Life? % mg/L	#: AB14615 Vater Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0017 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appe	0/2013 earance E timated?	118.7 Black Aqu esult 2.7 0.24 7.16	MPN/100mL IDEM Sample : Wuatic Life? % mg/L SU umho/cm	#: AB14615 Vater Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0017 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appe	0/2013 earance E timated?	118.7 Black Aqu esult 2.7 0.24 7.16 839	MPN/100mL IDEM Sample: Wuatic Life? % mg/L SU umho/cm °C	#: AB14615 Vater Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0017 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appe	0/2013 earance E timated?	118.7 Black Aqu 2.7 0.24 7.16 839 22.47 16.3	MPN/100mL IDEM Sample: Wuatic Life? % mg/L SU umho/cm °C	#: AB14615 Vater Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SitelD: LMG-05-0017 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat** DO** pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appe	0/2013 earance E timated?	118.7 Black Aqu 2.7 0.24 7.16 839 22.47 16.3 5	MPN/100mL IDEM Sample : Wuatic Life? % mg/L SU umho/cm °C NTU	#: AB14615 Vater Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli SiteID: LMG-05-0017 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appe	0/2013 earance E timated?	118.7 Black Aqu esult 2.7 0.24 7.16 839 22.47 16.3 5 1	MPN/100mL IDEM Sample : Wuatic Life? % mg/L SU umho/cm °C NTU Lookup	#: AB14615 Vater Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

Tuesday, October 22, 2013 Page 117 of 207

1 Lookup

Observation

Wind Strength

Lab ID # : A994704		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		380 mg	g/L	20	EPA 310.2
Chloride		23 mg		1.3	EPA 300.0
Hardness (as CaCO3)		420 mg	y/L	1	SM2340B
Solids, Suspended Total, (TSS)		280 mg		1	SM2540D
Solids, Total (TS)		720 mg	g/L	10	SM2540B
Solids, Total Dissolved (TDS)		470 mg	g/L	10	SM2540C
Sulfate		42 mg	g/L	1.3	EPA 300.0
COD		76 mg	g/L	10	EPA 410.4
Nitrogen, Ammonia		1.5 mg	g/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.014 mg	g/L	0.01	EPA 353.2
Phosphorus, Total		1.3 mg	g/L	0.25	EPA 365.1
TKN		4.9 mg	g/L	0.3	SM4500N(Org)-D
TOC		11 mç	g/L	1	SM5310C
SiteID: LMG-05-0017 Sa	mple Date: 9/10/2013	ID	EM Sample #	t: AB12824	
Siterb. Livid-03-0017 3a	•		•		☐ Algae?
Nater Flow Type Run	Water Annearance	Clear			
Water Flow Type Run	Water Appearance	Clear		ater Depth	· ·
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered in c	☐ Flow Estimated?		vv tic Life?	Canopy Closed %	· ·
Vater Flow (cf/sec):	☐ Flow Estimated?			•	•
Vater Flow (cf/sec): Sampler Comments: Covered in c	☐ Flow Estimated?	☐ Aqua		Canopy Closed %	0-20%
Vater Flow (cf/sec): Sampler Comments: Covered in c	☐ Flow Estimated?	☐ Aqua	tic Life?	Canopy Closed %	0-20% Method ASTM D888-09(C
Vater Flow (cf/sec): Sampler Comments: Covered in c Lab ID #: % Sat	☐ Flow Estimated?	Result	tic Life?	Canopy Closed %	0-20% Method ASTM D888-09(C
Nater Flow (cf/sec): Covered in C Lab ID #: % Sat DO	☐ Flow Estimated?	Result 19.3 % 1.55 mg	tic Life?	Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C
Nater Flow (cf/sec): Covered in C Lab ID #: % Sat DO pH (Field)	☐ Flow Estimated?	Result 19.3 % 1.55 mg 7.6 St	tic Life?	Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2
Vater Flow (cf/sec): Sampler Comments: Covered in C Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	☐ Flow Estimated?	Result 19.3 % 1.55 mg 7.6 SL 824 um	tic Life? g/L J nho/cm	Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B
Vater Flow (cf/sec): Sampler Comments: Covered in C Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	☐ Flow Estimated?	Result 19.3 % 1.55 mg 7.6 SL 824 um 26.71 °C	n/L J nho/cm	Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2)
Vater Flow (cf/sec): Sampler Comments: Covered in control of the c	☐ Flow Estimated?	Result 19.3 % 1.55 mg 7.6 SL 824 um 26.71 °C 9.8 NT	n/L J nho/cm -U okup	Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow (cf/sec): Sampler Comments: Covered in control of the c	☐ Flow Estimated?	Result 19.3 % 1.55 mg 7.6 SL 824 um 26.71 °C 9.8 NT 6 Lo	n/L J nho/cm -U okup okup	Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow (cf/sec): Sampler Comments: Covered in control of the c	☐ Flow Estimated?	Result 19.3 % 1.55 mg 7.6 SL 824 um 26.71 °C 9.8 NT 6 Lo 1 Lo	tic Life? a/L J nho/cm -U okup okup okup	Canopy Closed %	Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Nater Flow (cf/sec): Sampler Comments: Covered in Cover	☐ Flow Estimated?	Result 19.3 % 1.55 mg 7.6 SL 824 um 26.71 °C 9.8 NT 6 Lo 1 Lo 27 Lo	tic Life? a/L J nho/cm -U okup okup okup	Canopy Closed %	Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow (cf/sec): Sampler Comments: Covered in C Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	☐ Flow Estimated?	Result 19.3 % 1.55 mg 7.6 SL 824 um 26.71 °C 9.8 NT 6 Lo 1 Lo 27 Lo 2 Lo	a/L J nho/cm -U okup okup okup	Canopy Closed % Reporting Limit	Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 118 of 207

SiteID: LMG-05-0017	Sample Date : 9/17/2013		IDEM Sample	e #: AB12863	
Vater Flow Type Stagnant	Water Appearance	Clear		Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments: Covered	in duckweed				
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% 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			Lookup		Observation
Wind Direction			Lookup		Observation
Wind Strength			Lookup		Observation
Lab ID # : AB12863		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
Comornie (Total)					
E. coli	Sample Date: 9/24/2013		MPN/100mL IDEM Sample	1 e #: AB12902	SM9223B
E. coli SitelD: LMG-05-0017	Sample Date: 9/24/2013 Water Appearance		IDEM Sampl		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0017 Vater Flow Type Run	•	Clear	IDEM Sampl	e#: AB12902	✓ Algae?
E. coli SiteID: LMG-05-0017 Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance	Clear	IDEM Sampl	e #: AB12902 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?	Clear	IDEM Sampl	e #: AB12902 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?	Clear Aq Result	IDEM Sample uatic Life?	e #: AB12902 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #:	Water Appearance Flow Estimated?	Clear Aq Result	IDEM Sampl	e #: AB12902 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #:	Water Appearance Flow Estimated?	Clear Aq Result	IDEM Sample uatic Life? % mg/L	e #: AB12902 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO	Water Appearance Flow Estimated?	Clear Aq Result 34.3 3.5 7.49	IDEM Sample uatic Life? % mg/L	e #: AB12902 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Covered Lab ID #: % Sat DO pH (Field)	Water Appearance Flow Estimated?	Clear Aq Result 34.3 3.5 7.49	Uatic Life? % mg/L SU umho/cm	e #: AB12902 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance Flow Estimated?	Clear Result 34.3 3.5 7.49 880 14.33	Uatic Life? % mg/L SU umho/cm	e #: AB12902 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Clear Result 34.3 3.5 7.49 880 14.33 7.4	IDEM Sample uatic Life? % mg/L SU umho/cm °C	e #: AB12902 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance Flow Estimated?	Clear Result 34.3 3.5 7.49 880 14.33 7.4 3	We mg/L SU umho/cm °C NTU	e #: AB12902 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance Flow Estimated?	Clear Result 34.3 3.5 7.49 880 14.33 7.4 3 1	Muatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12902 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance Flow Estimated?	Clear Result 34.3 3.5 7.49 880 14.33 7.4 3 1 9	"Watic Life?" "Watic Life?" "Mag/L SU umho/cm "C NTU Lookup Lookup	e #: AB12902 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0017 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance Flow Estimated?	Clear Result 34.3 3.5 7.49 880 14.33 7.4 3 1 9	"C" NTU Lookup Lookup Lookup	e #: AB12902 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0017 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance Flow Estimated?	Clear Result 34.3 3.5 7.49 880 14.33 7.4 3 1 9 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12902 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 119 of 207

Weather Code Definitions								
_	C		WD Wind Direction	ws	AT			
Sky Co	nditions	1	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				

Tuesday, October 22, 2013 Page 120 of 207

SiteID:LMG-05-0036USGS Hydrologic Unit:040400010502Stream Name:Smith DitchCounty: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:** 7/9/2013 **IDEM Sample #:** AB13593

Water Flow Type Run Water Appearance Murky Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	61.7 %			ASTM D888-09(C)
DO	5.07 mg	g/L		ASTM D888-09(C)
pH (Field)	7.58 SL	J		EPA 150.2
Specific Conductance (Field)	728 un	nho/cm		SM2510B
Temperature	25.21 °C	;		SM2550B(2)
Turbidity (Hach)	49.9 N	ΓU		EPA 180.1
Air Temp	5 Lo	okup		Observation
Sky Conditions	4 Lo	okup		Observation
Wind Direction	27 Lo	okup		Observation
Wind Strength	1 Lo	ookup		Observation
Lab ID # : A988982	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	150 mg	g/L	10	EPA 310.2
Chloride	91 mg	g/L	1.3	EPA 300.0
Hardness (as CaCO3)	220 mg	g/L	1	SM2340B
Solids, Suspended Total, (TSS)	29 mg	g/L	1	SM2540D
Solids, Total (TS)	450 mg	g/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg	g/L	10	SM2540C
Sulfate	24 mg	g/L	1.3	EPA 300.0
COD	42 mg	g/L	10	EPA 410.4
Nitrogen, Ammonia	0.2 mg	g/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.11 mg	g/L	0.01	EPA 353.2
Phosphorus, Total	0.21 mg	g/L	0.05	EPA 365.1
TKN	1.2 mg	g/L	0.3	SM4500N(Org)-D
TOC	9.9 mg	g/L	1	SM5310C
Lab ID # : AB13593	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 Mi	PN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MF	PN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 121 of 207

SiteID: LMG-05-0036 Sample Date: 7/22/2013 IDEM Sample #: AB11740 ✓ Algae? Water Flow Type Run Water Appearance Murky **Water Depth** ✓ Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 36.1 % SM4500-OG % Sat DO 3.13 mg/L SM4500-OG 7.33 SU pH (Field) EPA 150.2 Specific Conductance (Field) 720 umho/cm SM2510B Temperature 27.8 °C SM2550B(2) **Turbidity** 117 NTU SM2130B Mod Air Temp 5 Lookup Observation 2 Lookup Sky Conditions Observation Wind Direction 25 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0036 Sample Date: IDEM Sample #: AB14000 8/6/2013 ✓ Algae? **Water Flow Type** Glide Water Appearance Murky **Water Depth** ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 64.1 % ASTM D888-09(C) % Sat DO 5.64 mg/L ASTM D888-09(C) pH (Field) 7.52 SU EPA 150.2 Specific Conductance (Field) 861 umho/cm SM2510B 21.66 °C Temperature SM2550B(2) Turbidity (Hach) 106 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 122 of 207

Lab ID # : A991488		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		170	mg/L	10	EPA 310.2
Chloride		150	mg/L	2.5	EPA 300.0
Hardness (as CaCO3)		290	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		60	mg/L	1	SM2540D
Solids, Total (TS)		600	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	2.5	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.014	-	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	5	SM5310C
Lab ID # : AB14000		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		770.1	MPN/100mL	1	SM9223B
Vater Flow Type Stagnant Vater Flow (cf/sec):	Water Appearance Flow Estimated?	Murky	W uatic Life?	later Depth Canopy Closed %	☐ Algae?
				-	_
Vater Flow (cf/sec): campler Comments:				-	_
Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat		Aq	juatic Life?	Canopy Closed %	0-20%
Vater Flow (cf/sec): Sampler Comments: Lab ID #:		Result	yuatic Life?	Canopy Closed %	0-20%
Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat		Result 42.7 48.1 3.91	watic Life? % % mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C)
Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat % Sat		Result 42.7 48.1 3.91 3.45	% % mg/L mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat % Sat DO		Result 42.7 48.1 3.91	% % mg/L mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C)
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat % Sat DO DO		Result 42.7 48.1 3.91 3.45	% % mg/L mg/L SU	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C)
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat % Sat DO DO pH (Field)		Result 42.7 48.1 3.91 3.45 7.74 7.59	% % mg/L mg/L SU	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat % Sat DO DO pH (Field) pH (Field)		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026	% % mg/L mg/L SU SU	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat % Sat DO DO pH (Field) pH (Field) Specific Conductance (Field)		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026	% % mg/L mg/L SU SU umho/cm umho/cm	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 SM2510B
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat % Sat DO DO pH (Field) pH (Field) Specific Conductance (Field) Specific Conductance (Field)		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988	% % mg/L mg/L SU SU umho/cm umho/cm °C	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 SM2510B SM2510B
Water Flow (cf/sec): sampler Comments: "Sat % Sat % Sat DO DO PH (Field) PH (Field) Specific Conductance (Field) Specific Conductance (Field) Temperature		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58	% % mg/L mg/L SU SU umho/cm umho/cm °C	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 SM2510B SM2510B SM2550B(2)
Water Flow (cf/sec): Sampler Comments: Water Flow (cf/sec): Sampler Comments: % Sat % Sat DO DO pH (Field) pH (Field) pH (Field) Specific Conductance (Field) Temperature Temperature		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58 39.1	% % mg/L mg/L SU SU umho/cm umho/cm °C	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 EPA 150.2 SM2510B SM2510B SM2550B(2) SM2550B(2)
Water Flow (cf/sec): Sampler Comments: **Sat **Sat DO DO pH (Field) pH (Field) Specific Conductance (Field) Specific Conductance (Field) Temperature Temperature Turbidity		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58 39.1 28.7	% % mg/L mg/L SU sumho/cm umho/cm °C °C NTU	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 SM2510B SM2510B SM2550B(2) SM2550B(2) SM2130B Mod
Water Flow (cf/sec): Sampler Comments: **Sat** % Sat** DO DO pH (Field) pH (Field) Specific Conductance (Field) Specific Conductance (Field) Temperature Temperature Turbidity Turbidity (Hach)		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58 39.1 28.7 5	% % mg/L mg/L SU su umho/cm umho/cm C C C NTU NTU	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 EPA 150.2 SM2510B SM25510B SM2550B(2) SM2550B(2) SM2130B Mod EPA 180.1
Water Flow (cf/sec): Sampler Comments: ### Sat ### Sat ## DO ## DO ## (Field) ## (Fi		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58 39.1 28.7 5	% % mg/L mg/L SU SU umho/cm umho/cm C C T NTU NTU Lookup	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 EPA 150.2 SM2510B SM25510B SM2550B(2) SM2550B(2) SM2130B Mod EPA 180.1 Observation
Water Flow (cf/sec): Sampler Comments:		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58 39.1 28.7 5 5	% % mg/L mg/L SU umho/cm umho/cm °C °C NTU NTU Lookup Lookup	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 SM2510B SM25510B SM2550B(2) SM2550B(2) SM2130B Mod EPA 180.1 Observation Observation
Water Flow (cf/sec): Sampler Comments: "% Sat % Sat DO DO pH (Field) pH (Field) Specific Conductance (Field) Specific Conductance (Field) Temperature Temperature Turbidity Turbidity (Hach) Air Temp Air Temp Sky Conditions		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58 39.1 28.7 5 1	% % mg/L mg/L SU umho/cm umho/cm °C °C NTU NTU Lookup Lookup Lookup	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 EPA 150.2 SM2510B SM2550B(2) SM2550B(2) SM2550B(2) SM2130B Mod EPA 180.1 Observation Observation Observation
Water Flow (cf/sec): Sampler Comments: "Sat % Sat % Sat DO DO PH (Field) PH		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58 39.1 28.7 5 1 1 27	% % mg/L mg/L SU umho/cm "C "C NTU NTU Lookup Lookup Lookup Lookup	Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 SM2510B SM25510B SM2550B(2) SM2550B(2) SM2130B Mod EPA 180.1 Observation Observation Observation
Water Flow (cf/sec): Sampler Comments:		Result 42.7 48.1 3.91 3.45 7.74 7.59 1026 988 26.11 25.58 39.1 28.7 5 1 1 27 27	% % % mg/L mg/L SU umho/cm umho/cm °C °C NTU NTU Lookup Lookup Lookup Lookup Lookup	Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 EPA 150.2 EPA 150.2 SM2510B SM2550B(2) SM2550B(2) SM2550B(2) SM2130B Mod EPA 180.1 Observation Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 123 of 207

Lab ID # : A994705		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		220	mg/L	50	EPA 310.2
Chloride			mg/L	2.5	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		< 0.01	-	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	5	SM5310C
Lab ID # : AB12825		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		1553.1	MPN/100mL	1	SM9223B
SiteID: LMG-05-0036 Water Flow Type Stagnant	Sample Date: 9/17/2013 Water Appearance	Murky	IDEM Sample	#: AB12864 /ater Depth	✓ Algae?
Water Flow Type Stagnant Water Flow (cf/sec):	·		-		
Nater Flow Type Stagnant Nater Flow (cf/sec):	Water Appearance		V	later Depth	
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	later Depth	
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments:	Water Appearance	Ac	V quatic Life?	/ater Depth Canopy Closed %	0-20%
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	vquatic Life?	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	vquatic Life? % mg/L	/ater Depth Canopy Closed %	0-20%
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 71.4 7.11 7.98	vquatic Life? % mg/L	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 71.4 7.11 7.98 1075	wquatic Life? % mg/L SU umho/cm	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 71.4 7.11 7.98 1075 15.47	wquatic Life? % mg/L SU umho/cm	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 71.4 7.11 7.98 1075 15.47 18.5	% mg/L SU umho/cm °C NTU	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	71.4 7.11 7.98 1075 15.47 18.5	% mg/L SU umho/cm °C	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	71.4 7.11 7.98 1075 15.47 18.5 4	watic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 71.4 7.11 7.98 1075 15.47 18.5 4 1	% mg/L SU umho/cm °C NTU Lookup	/ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 71.4 7.11 7.98 1075 15.47 18.5 4 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	/ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	71.4 7.11 7.98 1075 15.47 18.5 4 1 18 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 124 of 207

SiteID: LMG-05-0036 Sample Date: 9/24/2013 IDEM Sample #: AB12903 Water Appearance Murky **Water Depth** ✓ Algae? Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 77.6 % ASTM D888-09(C) % Sat 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 Observation Sky Conditions 1 Lookup Wind Direction Observation 9 Lookup Wind Strength 1 Lookup Observation Lab ID #: AB12903 **Reporting Limit** Result **Method**

> 2419.6 MPN/100mL

209.8 MPN/100mL

2419.6

1

SM9223B

SM9223B

	Weather Code Definitions							
SC WD WS AT								
Sky Co	nditions	1	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				

Coliforms (Total)

E. coli

Tuesday, October 22, 2013 Page 125 of 207

SiteID:LMG-05-0018USGS Hydrologic Unit:040400010502Stream Name:Main Beaver Dam DitchCounty: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**: 7/9/2013 **IDEM Sample #**: AB13594

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	57.7	%		ASTM D888-09(C)
DO	5.06	mg/L		ASTM D888-09(C)
pH (Field)	7.33	SU		EPA 150.2
Specific Conductance (Field)	621	umho/cm		SM2510B
Temperature	21.78	°C		SM2550B(2)
Turbidity (Hach)	4.6	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Flow	17.7532	cf/sec		TM D5389-95/D3858
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988983	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	150	mg/L	10	EPA 310.2
Chloride	66	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	220	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	2	mg/L	1	SM2540D
Solids, Total (TS)	390	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340	mg/L	10	SM2540C
Sulfate	34	mg/L	1.3	EPA 300.0
COD	40	mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	7.3	mg/L	0.1	EPA 353.2
Phosphorus, Total	0.38	mg/L	0.05	EPA 365.1
TKN	1.2	mg/L	0.3	SM4500N(Org)-D
TOC	9.5	mg/L	1	SM5310C
Lab ID # : AB13594	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1986.3	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 126 of 207

SiteID: LMG-05-0018 Sample Date: 7/22/2013 IDEM Sample #: AB11741 **Water Depth** ✓ Algae? Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 84 % SM4500-OG % Sat DO 7.05 mg/L SM4500-OG 7.71 SU pH (Field) EPA 150.2 Specific Conductance (Field) 635 umho/cm SM2510B Temperature 22.57 °C SM2550B(2) Turbidity (Hach) 3.56 NTU EPA 180.1 Air Temp 5 Lookup Observation 3 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0018 Sample Date: IDEM Sample #: AB14001 8/6/2013 ✓ Algae? **Water Depth Water Flow Type** Riffle Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 65.3 % ASTM D888-09(C) % Sat DO 5.84 mg/L ASTM D888-09(C) pH (Field) 7.43 SU EPA 150.2 Specific Conductance (Field) 720 umho/cm SM2510B 20.74 °C Temperature SM2550B(2) Turbidity (Hach) 3.07 NTU EPA 180.1 Air Temp 5 Lookup Observation Flow 6.9734 cf/sec TM D5389-95/D3858 Sky Conditions 3 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 127 of 207

Lab ID # : A991489		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		120	mg/L	10	EPA 310.2
Chloride		96	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		230	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		5	mg/L	1	SM2540D
Solids, Total (TS)		450	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		370	mg/L	10	SM2540C
Sulfate		46	mg/L	1.3	EPA 300.0
COD		24	mg/L	10	EPA 410.4
Nitrogen, Ammonia		0.14	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		16	mg/L	0.2	EPA 353.2
Phosphorus, Total		0.57	mg/L	0.05	EPA 365.1
TKN		0.96	mg/L	0.3	SM4500N(Org)-D
TOC		8.5	mg/L	1	SM5310C
Lab ID # : AB14001		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		461.1	MPN/100mL	1	SM9223B
SiteID: LMG-05-0018 Water Flow Type Run	Sample Date: 9/10/2013 Water Appearance	Clear	IDEM Sample	#: AB12826 Vater Depth	✓ Algae?
Water Flow Type Run	•		_		
Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance		V	Vater Depth	
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Aq	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	yuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 71 6.1 7.52	yuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 71 6.1 7.52	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 71 6.1 7.52 729 22.91	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 71 6.1 7.52 729 22.91 1.2	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 71 6.1 7.52 729 22.91 1.2 5	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 71 6.1 7.52 729 22.91 1.2 5	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 71 6.1 7.52 729 22.91 1.2 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 71 6.1 7.52 729 22.91 1.2 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 71 6.1 7.52 729 22.91 1.2 5 1 27 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 128 of 207

Sample Date: IDEM Sample #: AB14617 SiteID: LMG-05-0018 9/10/2013

✓ Algae? Water Flow Type Riffle Water Appearance Clear Water Depth

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

ılt	Reporting Limit	Method
0.7 %		ASTM D888-09(C)
.95 mg/L		ASTM D888-09(C)
.26 SU		EPA 150.2
701 umho/cm		SM2510B
.72 °C		SM2550B(2)
.32 NTU		EPA 180.1
5 Lookup		Observation
153 cf/sec		TM D5389-95/D3858
1 Lookup		Observation
27 Lookup		Observation
1 Lookup		Observation
ılt	Reporting Limit	Method
82 mg/L	10	EPA 310.2
82 mg/L	1.3	EPA 300.0
190 mg/L	1	SM2340B
< 1 mg/L	1	SM2540D
100 mg/L	10	SM2540B
380 mg/L	10	SM2540C
43 mg/L	0.25	EPA 300.0
	40	
17 mg/L	10	EPA 410.4
17 mg/L .13 mg/L	0.1	EPA 410.4 SM4500NH3-G
J	_	
.13 mg/L	0.1	SM4500NH3-G
.13 mg/L 20 mg/L	0.1 0.2	SM4500NH3-G EPA 353.2
1	153 cf/sec 1 Lookup 27 Lookup 1 Lookup 1 Lookup 82 mg/L 82 mg/L 190 mg/L <1 mg/L 400 mg/L 43 mg/L 43 mg/L	0.7 % .95 mg/L .26 SU 701 umho/cm .72 °C .32 NTU 5 Lookup 153 cf/sec 1 Lookup 27 Lookup 1 Loo

Tuesday, October 22, 2013 Page 129 of 207

SiteID: LMG-05-0018	Sample Date:	9/17/2013		IDEM Sample	e #: AB12865	
Water Flow Type Run	Water	Appearance	Clear		Water Depth	✓ Algae?
Water Flow (cf/sec):	Flow	Estimated?		uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
Colliditis (Total)						
E. coli	Sample Date:	9/24/2013		MPN/100mL	1 e #: AB12904	SM9223B
E. coli SiteID: LMG-05-0018	Sample Date:	9/24/2013 Appearance		IDEM Sample		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0018 Vater Flow Type Run	Water		95.9	IDEM Sample	e # : AB12904	✓ Algae?
E. coli SiteID: LMG-05-0018	Water	Appearance	95.9	IDEM Sample	e #: AB12904 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	95.9	IDEM Sample	e #: AB12904 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	95.9 Clear	IDEM Sample	e #: AB12904 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli itelD: LMG-05-0018 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: _ab ID #:	Water	Appearance	Clear Aq Result	IDEM Sample	e #: AB12904 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result	IDEM Sample quatic Life? % mg/L	e #: AB12904 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO	Water	Appearance	95.9 Clear Aq Result 70 6.5 7.51	IDEM Sample quatic Life? % mg/L	e #: AB12904 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	95.9 Clear Aq Result 70 6.5 7.51	IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12904 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	P5.9 Clear Aq Result 70 6.5 7.51 822 18.73	IDEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12904 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	95.9 Clear Result 70 6.5 7.51 822 18.73 2.5	Muatic Life? % mg/L SU umho/cm °C	e #: AB12904 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Lab ID #: **Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water	Appearance	95.9 Clear Result 70 6.5 7.51 822 18.73 2.5 3	IDEM Sample quatic Life? % mg/L SU umho/cm °C NTU	e #: AB12904 Water Depth Canopy Closed %	■ Algae? 0-20% Method
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Base	Water	Appearance	95.9 Clear Result 70 6.5 7.51 822 18.73 2.5 3 1	Muatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12904 Water Depth Canopy Closed %	■ Algae? 0-20% Method
E. coli SiteID: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water	Appearance	95.9 Clear Aq Result 70 6.5 7.51 822 18.73 2.5 3 1 9	"C" NTU Lookup Lookup	e #: AB12904 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SitelD: LMG-05-0018 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	95.9 Clear Aq Result 70 6.5 7.51 822 18.73 2.5 3 1 9	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12904 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0018 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	95.9 Clear Result 70 6.5 7.51 822 18.73 2.5 3 1 9 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12904 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 130 of 207

Weather Code Definitions						
SC WD WS AT						
Sky Conditions Wind Direction			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		

Tuesday, October 22, 2013 Page 131 of 207

SiteID:LMG-05-0019USGS Hydrologic Unit:040400010501Stream Name:Tributary of Main Beaver Dam DitchCounty: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**: 7/9/2013 **IDEM Sample #**: AB13595

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	<u>Method</u>
% Sat	28.2 %	, D		ASTM D888-09(C)
DO	2.49 m	ng/L		ASTM D888-09(C)
pH (Field)	7.31 S	U		EPA 150.2
Specific Conductance (Field)	566 ur	mho/cm		SM2510B
Temperature	21.22 °C	C		SM2550B(2)
Turbidity (Hach)	5.99 N	TU		EPA 180.1
Air Temp	5 Lo	ookup		Observation
Sky Conditions	8 Lo	ookup		Observation
Wind Direction	27 Lo	ookup		Observation
Wind Strength	2 Lo	ookup		Observation
Lab ID # : A988984	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	150 m	ng/L	10	EPA 310.2
Chloride	72 m	ng/L	1.3	EPA 300.0
Hardness (as CaCO3)	180 m	ng/L	1	SM2340B
Solids, Suspended Total, (TSS)	3 m	ng/L	1	SM2540D
Solids, Total (TS)	320 m	ng/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 m	ng/L	10	SM2540C
Sulfate	15 m	ng/L	1.3	EPA 300.0
COD	38 m	ng/L	10	EPA 410.4
Nitrogen, Ammonia	0.56 m	ng/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.095 m	ng/L	0.01	EPA 353.2
Phosphorus, Total	0.18 m	ng/L	0.05	EPA 365.1
TKN	1.4 m	ng/L	0.3	SM4500N(Org)-D
TOC	10 m	ng/L	1	SM5310C
Lab ID # : AB13595	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6 M	IPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 M	IPN/100mL	2419.6	SM9223B

Tuesday, October 22, 2013 Page 132 of 207

SiteID: LMG-05-0019 Sample Date: 7/22/2013 IDEM Sample #: AB11742 Gray (Septic/Sewag ✓ Algae? Water Flow Type Run Water Appearance Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 3.6 % SM4500-OG % Sat DO 0.31 mg/L SM4500-OG 7.38 SU pH (Field) EPA 150.2 Specific Conductance (Field) 1163 umho/cm SM2510B Temperature 16.16 °C SM2550B(2) **Turbidity** NTU SM2130B Mod Air Temp 4 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0019 Sample Date: IDEM Sample #: AB14002 8/6/2013 ✓ Algae? Water Flow Type Run Water Appearance Murky **Water Depth** ✓ Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 8.2 % ASTM D888-09(C) % Sat DO 0.8 mg/L ASTM D888-09(C) pH (Field) 7.19 SU EPA 150.2 Specific Conductance (Field) 990 umho/cm SM2510B 17.9 °C Temperature SM2550B(2) Turbidity (Hach) 11.7 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 133 of 207

Lab ID # : A991491		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		180	mg/L	10	EPA 310.2
Chloride		140	mg/L	2.5	EPA 300.0
Hardness (as CaCO3)		230	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		8	mg/L	1	SM2540D
Solids, Total (TS)		490	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		430	mg/L	10	SM2540C
Sulfate		24	mg/L	1.3	EPA 300.0
COD		43	mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.019	-	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	10	SM5310C
Lab ID # : AB14002		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6	MPN/100mL	2419.6	SM9223B
Water Flow (cf/sec):	Sample Date: 9/10/2013 Water Appearance	Clear		ater Depth	☐ Algae?
	·		•		-
Water Flow Type Stagnant Water Flow (cf/sec):	Water Appearance		Wa	ater Depth	-
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Ac	Watic Life?	ater Depth Canopy Closed %	0-20%
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	Watic Life?	ater Depth Canopy Closed %	0-20% <u>Method</u>
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	Watic Life? % mg/L	ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 8.6 0.81 7.06	Watic Life? % mg/L	ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 8.6 0.81 7.06	Watic Life? % mg/L SU umho/cm	ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 8.6 0.81 7.06 1388 17.89	Watic Life? % mg/L SU umho/cm	ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 8.6 0.81 7.06 1388 17.89 8.5	% mg/L SU umho/cm °C	ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 8.6 0.81 7.06 1388 17.89 8.5 5	% mg/L SU umho/cm °C NTU	ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 8.6 0.81 7.06 1388 17.89 8.5 5	Watic Life? % mg/L SU umho/cm °C NTU Lookup	ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 8.6 0.81 7.06 1388 17.89 8.5 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup	ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 8.6 0.81 7.06 1388 17.89 8.5 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 8.6 0.81 7.06 1388 17.89 8.5 5 1 27 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	ater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation
Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength Lab ID #: AB12827	Water Appearance	Result 8.6 0.81 7.06 1388 17.89 8.5 5 1 27 1 Result	watic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup Lookup	ater Depth Canopy Closed % Reporting Limit Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Method

Tuesday, October 22, 2013 Page 134 of 207

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 I	ife? Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<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 Looku	o	Observation
Sky Conditions		1 Looku	o	Observation
Wind Direction		27 Looku	o	Observation
Wind Strength		1 Looku	0	Observation
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

Tuesday, October 22, 2013 Page 135 of 207

Sampler Comments:	Algae? nopy Closed % 0-20% norting Limit Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Result Rep	ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Result Rep	ASTM D888-09(C) ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Lab ID #: Result Rep % Sat 23.8 % DO 2.36 mg/L pH (Field) 7.51 SU Specific Conductance (Field) 1556 umho/cm Temperature 15.63 °C Turbidity 5.2 NTU Air Temp 4 Lookup Sky Conditions 1 Lookup	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
% Sat 23.8 % DO 2.36 mg/L pH (Field) 7.51 SU Specific Conductance (Field) 1556 umho/cm Temperature 15.63 °C Turbidity 5.2 NTU Air Temp 4 Lookup Sky Conditions 1 Lookup	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
DO 2.36 mg/L pH (Field) 7.51 SU Specific Conductance (Field) 1556 umho/cm Temperature 15.63 °C Turbidity 5.2 NTU Air Temp 4 Lookup Sky Conditions 1 Lookup	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
pH (Field) 7.51 SU Specific Conductance (Field) 1556 umho/cm Temperature 15.63 °C Turbidity 5.2 NTU Air Temp 4 Lookup Sky Conditions 1 Lookup	EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Specific Conductance (Field) Temperature 15.63 °C Turbidity 5.2 NTU Air Temp 4 Lookup Sky Conditions 1 Lookup	SM2510B SM2550B(2) SM2130B Mod
Temperature 15.63 °C Turbidity 5.2 NTU Air Temp 4 Lookup Sky Conditions 1 Lookup	SM2550B(2) SM2130B Mod
Turbidity 5.2 NTU Air Temp 4 Lookup Sky Conditions 1 Lookup	SM2130B Mod
Air Temp 4 Lookup Sky Conditions 1 Lookup	
Sky Conditions 1 Lookup	Observation
Sky Conditions 1 Lookup	Observation
·	Observation
	Observation
Wind Strength 1 Lookup	Observation
	0.550.14.16.1
Lab ID #: AB12866 Result Rep	porting Limit Method
Coliforms (Total) > 2419.6 MPN/100mL	2419.6 SM9223B
E. coli > 2419.6 MPN/100mL	2419.6 SM9223B
Water Flow Type Stagnant Water Appearance Black Water D	Pepth
Vater Flow (cf/sec): ☐ Flow Estimated? ☐ Aquatic Life? Can	opy Closed % 0-20%
Sampler Comments:	
Lab ID #: Result Rep	porting Limit Method
	
% Sat 17.6 %	ASTM D888-09(C)
	ASTM D888-09(C) ASTM D888-09(C)
% Sat 17.6 % DO 1.78 mg/L	,
% Sat 17.6 % DO 1.78 mg/L	ASTM D888-09(C)
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU	ASTM D888-09(C) EPA 150.2
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm	ASTM D888-09(C) EPA 150.2 SM2510B
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C Turbidity 9.7 NTU Air Temp 3 Lookup	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C Turbidity 9.7 NTU Air Temp 3 Lookup Sky Conditions 1 Lookup	ASTM D888-09(C)
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C Turbidity 9.7 NTU Air Temp 3 Lookup Sky Conditions 1 Lookup Wind Direction 9 Lookup	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C Turbidity 9.7 NTU Air Temp 3 Lookup Sky Conditions 1 Lookup	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C Turbidity 9.7 NTU Air Temp 3 Lookup Sky Conditions 1 Lookup Wind Direction 9 Lookup Wind Strength 1 Lookup	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C Turbidity 9.7 NTU Air Temp 3 Lookup Sky Conditions 1 Lookup Wind Direction 9 Lookup Wind Strength 1 Lookup	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C Turbidity 9.7 NTU Air Temp 3 Lookup Sky Conditions 1 Lookup Wind Direction 9 Lookup Wind Strength 1 Lookup Lab ID #: AB12905 Result Rep E. coli 275.5 MPN/100mL	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Observation Observation
% Sat 17.6 % DO 1.78 mg/L pH (Field) 7.43 SU Specific Conductance (Field) 921 umho/cm Temperature 14.87 °C Turbidity 9.7 NTU Air Temp 3 Lookup Sky Conditions 1 Lookup Wind Direction 9 Lookup Wind Strength 1 Lookup Lab ID #: AB12905 Result Rep E. coli 275.5 MPN/100mL	ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 136 of 207

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	

Tuesday, October 22, 2013 Page 137 of 207

SiteID:LMG-05-0020USGS Hydrologic Unit:040400010501Stream Name:Main Beaver Dam DitchCounty: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**: 7/9/2013 **IDEM Sample #**: AB13596

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	<u>Method</u>
% Sat	48.1 %		ASTM D888-09(C)
DO	4.25 mg/L		ASTM D888-09(C)
pH (Field)	7.31 SU		EPA 150.2
Specific Conductance (Field)	571 umho/cm		SM2510B
Temperature	21.69 °C		SM2550B(2)
Turbidity (Hach)	15.5 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID #: A988985	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	160 mg/L	10	EPA 310.2
Chloride	29 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	240 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	6 mg/L	1	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
Sulfate	22 mg/L	1.3	EPA 300.0
COD	43 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.16 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	5.9 mg/L	0.1	EPA 353.2
Phosphorus, Total	0.15 mg/L	0.05	EPA 365.1
TKN	1.4 mg/L	0.3	SM4500N(Org)-D
TOC	12 mg/L	1	SM5310C
Lab ID # : AB13596	Result	Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100m	L 2419.6	SM9223B
E. coli	2419.6 MPN/100m	L 1	SM9223B

Tuesday, October 22, 2013 Page 138 of 207

SiteID: LMG-05-0020 Sample Date: 7/23/2013 IDEM Sample #: AB11743 ✓ Algae? Water Flow Type Water Appearance Murky Water Depth Glide ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 19.4 % SM4500-OG % Sat DO 1.61 mg/L SM4500-OG 7.39 SU pH (Field) EPA 150.2 Specific Conductance (Field) 531 umho/cm SM2510B Temperature 24.38 °C SM2550B(2) Turbidity (Hach) 70.1 NTU EPA 180.1 Air Temp Lookup Observation Sky Conditions Lookup Observation Wind Direction Lookup Observation Wind Strength Lookup Observation SiteID: LMG-05-0020 Sample Date: IDEM Sample #: AB14003 8/6/2013 ✓ Algae? **Water Depth Water Flow Type** Glide Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 71 % ASTM D888-09(C) % Sat DO 5.89 mg/L ASTM D888-09(C) pH (Field) 7.43 SU EPA 150.2 Specific Conductance (Field) 454 umho/cm SM2510B 22.55 °C SM2550B(2) Temperature Turbidity (Hach) 4.72 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 139 of 207

Lab ID # : A991492		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		200	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB14003		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		2419.6	MPN/100mL	1	SM9223B
		261.3	MPN/100mL	1	SM9223B
E. coli SiteID: LMG-05-0020 Water Flow Type Run	Sample Date: 9/10/2013 Water Appearance	Murky	IDEM Sample		☐ Algae?
SiteID: LMG-05-0020 Water Flow Type Run	Water Appearance	Murky	IDEM Sample	#: AB12828 /ater Depth	
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec):	·	Murky	IDEM Sample	#: AB12828	
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?	Murky	IDEM Sample	#: AB12828 /ater Depth	
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?	Murky	IDEM Sample V uatic Life?	#: AB12828 /ater Depth Canopy Closed %	0-20%
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered Lab ID #:	Water Appearance Flow Estimated?	Murky Aq Result	IDEM Sample V uatic Life?	#: AB12828 /ater Depth Canopy Closed %	0-20% <u>Method</u>
SiteID: LMG-05-0020 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #:	Water Appearance Flow Estimated?	Murky Aq Result	IDEM Sample V uatic Life? % mg/L	#: AB12828 /ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0020 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO	Water Appearance Flow Estimated?	Murky Aq Result 7.9 0.67 7.41	IDEM Sample V uatic Life? % mg/L	#: AB12828 /ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field)	Water Appearance Flow Estimated?	Murky Aq Result 7.9 0.67 7.41	IDEM Sample V uatic Life? % mg/L SU umho/cm	#: AB12828 /ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Murky Result 7.9 0.67 7.41 534 23.05	IDEM Sample V uatic Life? % mg/L SU umho/cm	#: AB12828 /ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Murky Result 7.9 0.67 7.41 534 23.05 14.4	IDEM Sample V uatic Life? % mg/L SU umho/cm °C NTU	#: AB12828 /ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0020 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Murky Result 7.9 0.67 7.41 534 23.05 14.4 5	IDEM Sample V uatic Life? % mg/L SU umho/cm °C	#: AB12828 /ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Murky Result 7.9 0.67 7.41 534 23.05 14.4 5	Muatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	#: AB12828 /ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0020 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Murky Result 7.9 0.67 7.41 534 23.05 14.4 5 1	IDEM Sample V uatic Life? % mg/L SU umho/cm °C NTU Lookup	#: AB12828 /ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Murky Result 7.9 0.67 7.41 534 23.05 14.4 5 1	"We will be a suppose of the color of the co	#: AB12828 /ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0020 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance Flow Estimated?	Murky Result 7.9 0.67 7.41 534 23.05 14.4 5 1 27 1 Result	"We will be a suppose of the color of the co	#: AB12828 /ater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 140 of 207

SiteID: LMG-05-0020	Sample Date: 9/10/2013	IDEM San	n ple #: 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	<u>Method</u>
% 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
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

Tuesday, October 22, 2013 Page 141 of 207

SiteID: LMG-05-0020 Sample Date: 9/17/2013 IDEM Sample #: AB12867 ✓ Algae? **Water Flow Type** Water Appearance Murky Water Depth Stagnant ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Covered in duckweed Lab ID #: Reporting Limit **Method** Result 17.3 % ASTM D888-09(C) % Sat DO 1.81 mg/L ASTM D888-09(C) 7.5 SU pH (Field) 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 Observation 1 Lookup Lab ID #: AB12867 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 71.2 MPN/100mL 1 SM9223B LMG-05-0020 Sample Date: IDEM Sample #: AB12906 SiteID: 9/24/2013 ✓ Algae? **Water Flow Type** Water Appearance Murky **Water Depth** Stagnant Water Flow (cf/sec): Flow Estimated? ■ Aquatic Life? Canopy Closed % 0-20% **Sampler Comments:** Covered in duckweed Lab ID #: **Reporting Limit** Method Result 18.9 % % Sat 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 12.5 °C Temperature SM2550B(2) 17.1 NTU Turbidity 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 Result **Reporting Limit Method** Coliforms (Total) 1299.7 MPN/100mL 1 SM9223B E. coli 64.5 MPN/100mL 1 SM9223B

Tuesday, October 22, 2013 Page 142 of 207

Weather Code Definitions					
S	C		WD	WS	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 143 of 207

SiteID:LMG-05-0021USGS Hydrologic Unit:040400010501Stream Name:Tributary of Main Beaver Dam DitchCounty: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**: 7/9/2013 **IDEM Sample #**: AB13597

Water Flow Type Run Water Appearance Murky Water Depth Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	<u>Result</u>	Reporting Limit	<u>Method</u>
% Sat	8.1 %		ASTM D888-09(C)
DO	0.71 mg/L		ASTM D888-09(C)
pH (Field)	7.2 SU		EPA 150.2
Specific Conductance (Field)	667 umho/cm	1	SM2510B
Temperature	22.91 °C		SM2550B(2)
Turbidity (Hach)	37 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation
_ab ID # : A988986	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	140 mg/L	10	EPA 310.2
Chloride	96 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	210 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	89 mg/L	1	SM2540D
Solids, Total (TS)	520 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	23 mg/L	1.3	EPA 300.0
COD	57 mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.1 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.14 mg/L	0.01	EPA 353.2
Phosphorus, Total	0.25 mg/L	0.05	EPA 365.1
TKN	1.6 mg/L	0.3	SM4500N(Org)-D
TOC	16 mg/L	5	SM5310C
Lab ID # : AB13597	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100	0mL 2419.6	SM9223B
E. coli	> 2419.6 MPN/100	0mL 2419.6	SM9223B

Tuesday, October 22, 2013 Page 144 of 207

SiteID: LMG-05-0021 Sample Date: 7/23/2013 IDEM Sample #: AB11744 ✓ Algae? **Water Flow Type** Water Appearance Water Depth Brown ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 6.2 % SM4500-OG % Sat DO 0.54 mg/L SM4500-OG 7.46 SU pH (Field) EPA 150.2 Specific Conductance (Field) 637 umho/cm SM2510B Temperature 22.82 °C SM2550B(2) Turbidity (Hach) 43.9 NTU EPA 180.1 Air Temp 4 Lookup Observation 4 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 2 Lookup Observation SiteID: LMG-05-0021 Sample Date: IDEM Sample #: AB14004 8/6/2013 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 25.7 % ASTM D888-09(C) % Sat DO 2.25 mg/L ASTM D888-09(C) pH (Field) 7.35 SU EPA 150.2 Specific Conductance (Field) 541 umho/cm SM2510B 20.55 °C SM2550B(2) Temperature Turbidity (Hach) 19.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 3 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 145 of 207

Result

Reporting Limit

Method

Lab ID #: A991493

Alkalinity (as CaCO3)		190	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		22	mg/L	1	SM2540D
Solids, Total (TS)		390	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		330	mg/L	10	SM2540C
Sulfate		11	mg/L	1.3	EPA 300.0
COD		71	mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.025	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.38	mg/L	0.05	EPA 365.1
TKN		1.2	mg/L	0.3	SM4500N(Org)-D
TOC		13	mg/L	1	SM5310C
Lab ID # : AB14004		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		152.9	MPN/100mL	1	SM9223B
SiteID: LMG-05-0021 Vater Flow Type Stagnant	Sample Date: 9/10/2013 Water Appearance	Clear	IDEM Sample	#: AB12829 Water Depth	✓ Algae?
Vater Flow Type Stagnant	Water Appearance		V	Vater Depth	_
Vater Flow Type Stagnant Vater Flow (cf/sec):	-		-		_
Vater Flow Type Stagnant Vater Flow (cf/sec):	Water Appearance Flow Estimated?		V	Vater Depth	
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?	☐ Ac	V quatic Life?	Vater Depth Canopy Closed %	0-20% <u>Method</u>
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #:	Water Appearance Flow Estimated?	Result	V quatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Result	quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36	quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field)	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36	quatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36 635 22.77	quatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36 635 22.77 8.4	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36 635 22.77 8.4 5	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36 635 22.77 8.4 5 1	watic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36 635 22.77 8.4 5 1	watic Life? % mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36 635 22.77 8.4 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance Flow Estimated?	Result 16.3 1.41 7.36 635 22.77 8.4 5 1 27 2 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 146 of 207

SiteID: LMG-05-0021	Sample Date: 9/10/2013	IDEM Samp	ole #: 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	<u>Method</u>
% 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
Lab ID # : A994710		Result	Reporting Limit	<u>Method</u>
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

Tuesday, October 22, 2013 Page 147 of 207

SiteID: LMG-05-0021	Sample Date: 9/17/2013	IDEM Sam	ple #: AB12868	
Vater Flow Type Stagnant	Water Appearance	Murky	Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% 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	<u>Method</u>
Coliforms (Total)		2419.6 MPN/100m	<u> </u>	SM9223B
Comornio (Total)				
E. coli SiteID: LMG-05-0021	Sample Date: 9/24/2013	42.2 MPN/100m		SM9223B
E. coli SitelD: LMG-05-0021	Sample Date: 9/24/2013 Water Appearance	42.2 MPN/100m		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0021 Nater Flow Type Stagnant	·	42.2 MPN/100m	ple #: AB12907 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0021 Water Flow Type Stagnant Water Flow (cf/sec):	Water Appearance	42.2 MPN/100m IDEM Sam Murky	ple #: AB12907 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0021 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?	42.2 MPN/100m IDEM Sam Murky	ple #: AB12907 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0021 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?	42.2 MPN/100m IDEM Sam Murky Aquatic Life?	ple #: AB12907 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0021 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #:	Water Appearance Flow Estimated?	IDEM Sam Murky Aquatic Life? Result 14.5 % 1.5 mg/L	ple #: AB12907 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0021 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #:	Water Appearance Flow Estimated?	IDEM Sam Murky Aquatic Life? Result 14.5 %	ple #: AB12907 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0021 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO	Water Appearance Flow Estimated?	IDEM Sam Murky Aquatic Life? Result 14.5 % 1.5 mg/L	ple #: AB12907 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0021 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field)	Water Appearance Flow Estimated?	IDEM Sam Murky Aquatic Life? Result 14.5 % 1.5 mg/L 7.28 SU	ple #: AB12907 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0021 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	IDEM Sam Murky Aquatic Life? Result 14.5 % 1.5 mg/L 7.28 SU 664 umho/cm	ple #: AB12907 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0021 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	### Aquatic Life? Aquatic Life?	ple #: AB12907 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0021 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	### Aquatic Life? DEM Same Murky	ple #: AB12907 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0021 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance Flow Estimated?	## Aquatic Life? DEM Same Murky	ple #: AB12907 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0021 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	IDEM Sam Murky Aquatic Life? Result 14.5 % 1.5 mg/L 7.28 SU 664 umho/cm 13.62 °C 12.1 NTU 3 Lookup 1 Lookup	ple #: AB12907 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0021 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	IDEM Sam Murky Aquatic Life? Result 14.5 % 1.5 mg/L 7.28 SU 664 umho/cm 13.62 °C 12.1 NTU 3 Lookup 1 Lookup 9 Lookup	ple #: AB12907 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0021 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	IDEM Sam Murky Aquatic Life? Result 14.5 % 1.5 mg/L 7.28 SU 664 umho/cm 13.62 °C 12.1 NTU 3 Lookup 1 Lookup 9 Lookup 1 Lookup	ple #: AB12907 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 148 of 207

		W	eather Code Def	initions	
_	C		WD	ws	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 149 of 207

SiteID:LMG-05-0022USGS Hydrologic Unit:040400010501Stream Name:Main Beaver Dam DitchCounty: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:** 7/9/2013 **IDEM Sample #:** AB13598

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	<u>Method</u>
% Sat	51.3	%		ASTM D888-09(C)
DO	4.25	mg/L		ASTM D888-09(C)
pH (Field)	7.48	SU		EPA 150.2
Specific Conductance (Field)	630	umho/cm		SM2510B
Temperature	24.92	°C		SM2550B(2)
Turbidity (Hach)	13	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988987	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	160	mg/L	10	EPA 310.2
Chloride	62	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	230	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	9	mg/L	1	SM2540D
Solids, Total (TS)	380	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370	mg/L	10	SM2540C
Sulfate	39	mg/L	1.3	EPA 300.0
COD	38	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	0.16	mg/L	0.05	EPA 365.1
TKN	1.1	mg/L	0.3	SM4500N(Org)-D
TOC	9.4	mg/L	1	SM5310C
Lab ID # : AB13598	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	816.4	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 150 of 207

SiteID: LMG-05-0022	Sample Date: 7/23/2013	IDEM Samp	le #: AB11745	
Water Flow Type Run	Water Appearance	Brown	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	✓ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		22.5 %		SM4500-OG
DO		1.19 mg/L		SM4500-OG
pH (Field)		7.32 SU		EPA 150.2
Specific Conductance (Field)		786 umho/cm		SM2510B
Temperature		25.6 °C		SM2550B(2)
Turbidity (Hach)		490 NTU		EPA 180.1
Air Temp		Lookup		Observation
Sky Conditions		Lookup		Observation
Wind Direction		Lookup		Observation
Wind Strength	Sample Date: 8/6/2013	Lookup	No #- AR14005	Observation
Wind Strength SiteID: LMG-05-0022 Water Flow Type Glide	Sample Date: 8/6/2013 Water Appearance	Lookup IDEM Samp Murky	ole #: AB14005 Water Depth	Observation Algae?
SiteID: LMG-05-0022 Water Flow Type Glide	·	IDEM Samp	Water Depth	✓ Algae?
SiteID: LMG-05-0022 Water Flow Type Glide Water Flow (cf/sec):	Water Appearance	IDEM Samp		✓ Algae?
SiteID: LMG-05-0022 Water Flow Type Glide Water Flow (cf/sec):	Water Appearance	IDEM Samp	Water Depth	✓ Algae?
SiteID: LMG-05-0022 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments:	Water Appearance	IDEM Samp Murky Aquatic Life?	Water Depth Canopy Closed %	Algae? 0-20% Method
SiteID: LMG-05-0022 Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Samp Murky Aquatic Life? Result	Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C
SiteID: LMG-05-0022 Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Samp Murky Aquatic Life? Result 47.9 %	Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C
SiteID: LMG-05-0022 Nater Flow Type Glide Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 47.9 % 4.2 mg/L	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C
SiteID: LMG-05-0022 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	IDEM Samp Murky Aquatic Life? Result 47.9 % 4.2 mg/L 7.24 SU	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2
SiteID: LMG-05-0022 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 47.9 % 4.2 mg/L 7.24 SU 623 umho/cm	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B
SiteID: LMG-05-0022 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	IDEM Samp Murky Aquatic Life? Result 47.9 % 4.2 mg/L 7.24 SU 623 umho/cm 21.6 °C	Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0022 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	IDEM Samp Murky Aquatic Life? Result 47.9 % 4.2 mg/L 7.24 SU 623 umho/cm 21.6 °C 20.4 NTU	Water Depth Canopy Closed %	Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: LMG-05-0022 Water Flow Type Glide Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 47.9 % 4.2 mg/L 7.24 SU 623 umho/cm 21.6 °C 20.4 NTU 5 Lookup	Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

Tuesday, October 22, 2013 Page 151 of 207

Result

Reporting Limit

Method

Lab ID #: A991494

Alkalinity (as CaCO3)		170	mg/L	10	EPA 310.2
Chloride		66	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		250	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)		440	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		360	mg/L	10	SM2540C
Sulfate		42	mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.016	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.11	mg/L	0.05	EPA 365.1
TKN		0.76	mg/L	0.3	SM4500N(Org)-D
TOC		10	mg/L	1	SM5310C
Lab ID # : AB14005		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		90.6	MPN/100mL	1	SM9223B
SiteID: LMG-05-0022 Water Flow Type Stagnant	Sample Date: 9/10/2013 Water Appearance	Murky	IDEM Sample	#: AB12830 Vater Depth	✓ Algae?
	·		•		
Nater Flow Type Stagnant Nater Flow (cf/sec):	Water Appearance		·	Vater Depth	
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?		·	Vater Depth	
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered	Water Appearance Flow Estimated?	☐ Aq	V Quatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #:	Water Appearance Flow Estimated?	Result	V Quatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Result	uatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47	uatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field)	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47 765 22.91	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47 765 22.91 20.8	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47 765 22.91 20.8 5	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47 765 22.91 20.8 5	watic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47 765 22.91 20.8 5 1	watic Life? % mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47 765 22.91 20.8 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance Flow Estimated?	Result 12.9 1.11 7.47 765 22.91 20.8 5 1 27 2 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 152 of 207

SiteID: LMG-05-0022 Sample Date: 9/10/2013 IDEM Sample #: AB14621 **Water Depth** ✓ Algae? Water Flow Type Glide Water Appearance Murky ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 21.4 % ASTM D888-09(C) % Sat 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 Observation 27 Lookup 1 Lookup Wind Strength Observation Lab ID #: A994711 **Reporting Limit** Result **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 SM5310C 10

Tuesday, October 22, 2013 Page 153 of 207

SiteID: LMG-05-0022 Sa	ample Date: 9/17/2013		DEM Sample	#: AB12869	
Vater Flow Type Stagnant	Water Appearance	Murky	,	Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aqua	atic Life?	Canopy Closed %	0-20%
campler Comments: Covered in	duckweed				
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		33.7 %	%		ASTM D888-09(C)
DO		3.44 m	ng/L		ASTM D888-09(C)
pH (Field)		7.81 S	SU		EPA 150.2
Specific Conductance (Field)		807 u	ımho/cm		SM2510B
Temperature		14.33 °C	С		SM2550B(2)
Turbidity		15 N	NTU		SM2130B Mod
Air Temp		3 L	.ookup		Observation
Sky Conditions		1 L	.ookup		Observation
Wind Direction			.ookup		Observation
Wind Strength			.ookup		Observation
Lab ID # : AB12869		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6 M	/IPN/100mL	2419.6	SM9223B
, ,			4DN1/400 1	à	CMOOOOD
E. coli SiteID: LMG-05-0022 Sa	ample Date: 9/24/2013		DEM Sample	1 #: AB12908	SM9223B
SiteID: LMG-05-0022 Sa	ample Date: 9/24/2013 Water Appearance		DEM Sample		✓ Algae?
SiteID: LMG-05-0022 Sa Nater Flow Type Stagnant	•	Murky	DEM Sample	#: AB12908	✓ Algae?
SiteID: LMG-05-0022 Sa Water Flow Type Stagnant Water Flow (cf/sec):	Water Appearance Flow Estimated?	Murky	DEM Sample	#: AB12908 Water Depth	✓ Algae?
SiteID: LMG-05-0022 Sa Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Covered in	Water Appearance Flow Estimated?	Murky	DEM Sample	#: AB12908 Water Depth	✓ Algae?
SiteID: LMG-05-0022 Sa Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Covered in	Water Appearance Flow Estimated?	Murky	DEM Sample \ atic Life?	#: AB12908 Water Depth Canopy Closed %	✓ Algae? 0-20%
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered in Lab ID #:	Water Appearance Flow Estimated?	Murky Aqua	DEM Sample Natic Life?	#: AB12908 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered in Lab ID #: % Sat	Water Appearance Flow Estimated?	Murky Aqua Result	DEM Sample vatic Life?	#: AB12908 Water Depth Canopy Closed %	ASTM D888-09(C)
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered in Lab ID #: % Sat DO	Water Appearance Flow Estimated?	Murky Aqua Result 40.8 % 4.24 m 7.65 S	DEM Sample vatic Life?	#: AB12908 Water Depth Canopy Closed %	ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): Campler Comments: Covered in Lab ID #: % Sat DO pH (Field)	Water Appearance Flow Estimated?	Murky Aqua Result 40.8 % 4.24 m 7.65 S	DEM Sample atic Life? ang/L BU mho/cm	#: AB12908 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): sampler Comments: Covered in Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance Flow Estimated?	Murky Aqua Result 40.8 % 4.24 m 7.65 S 798 u	DEM Sample atic Life? ang/L SU amho/cm C	#: AB12908 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): sampler Comments: Covered in Lab ID #:	Water Appearance Flow Estimated?	Murky Aqua Result 40.8 % 4.24 m 7.65 S 798 u 13.57 % 10.4 N	DEM Sample atic Life? ang/L SU amho/cm C	#: AB12908 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered in Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance Flow Estimated?	Murky Aqua Result 40.8 % 4.24 m 7.65 S 798 u 13.57 % 10.4 N 3 L	DEM Sample v atic Life? 6 ng/L SU amho/cm C NTU .ookup	#: AB12908 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered in Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance Flow Estimated?	Murky Aqua Result 40.8 % 4.24 m 7.65 S 798 u 13.57 % 10.4 N 3 L 1 L	DEM Sample value Life? definition of the control	#: AB12908 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0022 Sa Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments: Covered in Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance Flow Estimated?	Result 40.8 % 4.24 m 7.65 S 798 u 13.57 % 10.4 N 3 L 1 L 9 L	DEM Sample v atic Life? 6 ng/L SU amho/cm C NTU .ookup	#: AB12908 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0022 Sa Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Covered in Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance Flow Estimated?	Result 40.8 % 4.24 m 7.65 S 798 u 13.57 % 10.4 N 3 L 1 L 9 L	DEM Sample atic Life? atic Life? atic Life? Cong/L SU Imho/cm C ITU .ookup .ookup .ookup	#: AB12908 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0022 Sa Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Covered in Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance Flow Estimated?	Murky Aqua Result 40.8 % 4.24 m 7.65 S 798 u 13.57 % 10.4 N 3 L 1 L 9 L 1 L	DEM Sample atic Life? and and and and and and and an	#: AB12908 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 154 of 207

		W	eather Code Def	initions	
_	C		WD	ws	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 155 of 207

SiteID:LMG-05-0023USGS Hydrologic Unit:040400010503Stream Name:Tributary of Turkey CreekCounty:Lake

Description: 77th Avenue **Latitude:** 41 28 43.21702 **Longitude:** -87 26 17.78891

Drainage: 2.840 Site Number: 13T-028

SitelD: LMG-05-0023 **Sample Date:** 7/10/2013 **IDEM Sample #:** AB13599

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	<u>Method</u>
% Sat	21.4	%		ASTM D888-09(C)
DO	1.82	mg/L		ASTM D888-09(C)
pH (Field)	7.32	SU		EPA 150.2
Specific Conductance (Field)	657	umho/cm		SM2510B
Temperature	23.15	°C		SM2550B(2)
Turbidity (Hach)	2.28	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	0	Lookup		Observation
Lab ID # : A988988	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	190	mg/L	10	EPA 310.2
Chloride	69	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	230	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	1	mg/L	1	SM2540D
Solids, Total (TS)	390	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	360	mg/L	10	SM2540C
Sulfate	13	mg/L	1.3	EPA 300.0
COD	50	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	0.16	mg/L	0.05	EPA 365.1
TKN	1.1	mg/L	0.3	SM4500N(Org)-D
TOC	15	mg/L	1	SM5310C
Lab ID # : AB13599	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	90.8	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 156 of 207

SiteID: LMG-05-0023	Sample Date: 8/7/2013	IDEM Samp	le #: AB14006	
Vater Flow Type Glide	Water Appearance	Clear	Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		23.3 %		ASTM D888-09(C)
DO		2.04 mg/L		ASTM D888-09(C)
pH (Field)		7.27 SU		EPA 150.2
Specific Conductance (Field)		825 umho/cm		SM2510B
Temperature		21.09 °C		SM2550B(2)
Turbidity (Hach)		5.34 NTU		EPA 180.1
Air Temp		5 Lookup		Observation
Sky Conditions		4 Lookup		Observation
Wind Direction		27 Lookup		Observation
Wind Strength		1 Lookup		Observation
Lab ID # : A991495		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		180 mg/L	50	EPA 310.2
Chloride		100 mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		290 mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		5 mg/L	1	SM2540D
Solids, Total (TS)		540 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		460 mg/L	10	SM2540C
Sulfate		40 mg/L	1.3	EPA 300.0
COD		39 mg/L	10	EPA 410.4
Nitrogen, Ammonia		0.11 mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.011 mg/L	0.01	EPA 353.2
Phosphorus, Total		0.086 mg/L	0.05	EPA 365.1
TKN		0.89 mg/L	0.3	SM4500N(Org)-D
TOC		15 mg/L	10	SM5310C
Lab ID # : AB14006		Result	Reporting Limit	Method
Coliforms (Total)		> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli		87.8 MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 157 of 207

Vater Flow Type Stagnant	Water Appearance	Murky	Water Depth	☐ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
ampler Comments: Isolated	pool			
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% 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
Trina Guongan				C 2001 Valion
Lab ID #: AB12831		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100mL	_ 2419.6	SM9223B
			_ 2419.0	
E. coli		344.8 MPN/100mL		SM9223B
	Sample Date: 9/10/2013 Water Appearance ☐ Flow Estimated?		_ 1	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0023 Water Flow Type Pool Water Flow (cf/sec):	Water Appearance	344.8 MPN/100ml IDEM Samp	Die #: AB14622 Water Depth	SM9223B ✓ Algae?
SiteID: LMG-05-0023 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments:	Water Appearance	344.8 MPN/100ml IDEM Samp Brown Aquatic Life?	Die #: AB14622 Water Depth Canopy Closed %	SM9223B Algae? 0-20% Method
E. coli SiteID: LMG-05-0023 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	344.8 MPN/100ml IDEM Samp Brown Aquatic Life? Result	Die #: AB14622 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0023 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	IDEM Samp Brown Aquatic Life? Result 30.3 %	Die #: AB14622 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0023 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Brown Aquatic Life? Result 30.3 % 2.61 mg/L	Die #: AB14622 Water Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0023 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Brown Aquatic Life? Result 30.3 % 2.61 mg/L 7.49 SU	Die #: AB14622 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0023 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Brown Aquatic Life? Result 30.3 % 2.61 mg/L 7.49 SU 967 umho/cm	Die #: AB14622 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0023 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Brown Aquatic Life? Result 30.3 % 2.61 mg/L 7.49 SU 967 umho/cm 22.83 °C	Die #: AB14622 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0023 Vater Flow Type Pool Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Brown Aquatic Life? Result 30.3 % 2.61 mg/L 7.49 SU 967 umho/cm 22.83 °C 127 NTU 6 Lookup	Die #: AB14622 Water Depth Canopy Closed %	Method ASTM D888-09(C; ASTM D888-09(C; EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli SiteID: LMG-05-0023 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	344.8 MPN/100ml IDEM Samp Brown Aquatic Life? Result 30.3 % 2.61 mg/L 7.49 SU 967 umho/cm 22.83 °C 127 NTU	Die #: AB14622 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

Tuesday, October 22, 2013 Page 158 of 207

Lab ID # : A994712	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	210 n	mg/L	20	EPA 310.2
Chloride	110 n	mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	360 n	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	130 n	mg/L	1	SM2540D
Solids, Total (TS)	760 n	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	620 n	mg/L	10	SM2540C
Sulfate	120 n	mg/L	2.5	EPA 300.0
COD	120 n	mg/L	10	EPA 410.4
Nitrogen, Ammonia	2.6 n	mg/L	0.5	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	< 0.01 n	mg/L	0.01	EPA 353.2
Phosphorus, Total	2.8 m	mg/L	0.25	EPA 365.1
TKN	2.9 n	mg/L	0.3	SM4500N(Org)-D
TOC	22 n	mg/L	10	SM5310C
		9	-	

		W	eather Code Def	initions	
_	C nditions	,	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	

Tuesday, October 22, 2013 Page 159 of 207

SiteID:LMG-05-0024USGS Hydrologic Unit:040400010503Stream Name:Turkey CreekCounty:Lake

Description: Broad Street **Latitude:** 41 29 52.83355 **Longitude:** -87 25 39.23606

Drainage: 5.543 Site Number: 13T-029

SitelD: LMG-05-0024 **Sample Date:** 7/10/2013 **IDEM Sample #:** AB13600

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	<u>Method</u>
% Sat	70	%		ASTM D888-09(C)
DO	6.02	mg/L		ASTM D888-09(C)
pH (Field)	7.63	SU		EPA 150.2
Specific Conductance (Field)	726	umho/cm		SM2510B
Temperature	22.86	°C		SM2550B(2)
Turbidity (Hach)	9.27	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988989	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	190	mg/L	10	EPA 310.2
Chloride	78	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	260	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)	390	mg/L	10	SM2540C
Sulfate	37	mg/L	1.3	EPA 300.0
COD	41	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	0.13	mg/L	0.05	EPA 365.1
TKN	0.94	mg/L	0.3	SM4500N(Org)-D
TOC	12	mg/L	1	SM5310C
Lab ID # : AB13600	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1986.3	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 160 of 207

SiteID: LMG-05-0024	Sample Date: 7/23/2013	ı	DEM Sample	#: AB11747	
Water Flow Type Run	Water Appearance	Clear	W	later Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	✓ Aqu	atic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		78.1	%		SM4500-OG
DO		6.92 r	mg/L		SM4500-OG
pH (Field)		7.8 \$	SU		EPA 150.2
Specific Conductance (Field)		940 ι	umho/cm		SM2510B
Temperature		20.82	°C		SM2550B(2)
Turbidity (Hach)		14.5	NTU		EPA 180.1
Air Temp		5 l	Lookup		Observation
Sky Conditions		2 l	Lookup		Observation
Wind Direction		27 l	Lookup		Observation
Wind Strength	Comple Date: 0/7/2012		Lookup	#- AP44007	Observation
Wind Strength SiteID: LMG-05-0024 Water Flow Type Run	Sample Date: 8/7/2013 Water Appearance		DEM Sample	#: AB14007 /ater Depth	Observation Algae?
SiteID: LMG-05-0024 Water Flow Type Run	•	l Clear	DEM Sample :	later Depth	✓ Algae?
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	l Clear	DEM Sample		✓ Algae?
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	l Clear	DEM Sample :	later Depth	✓ Algae?
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	DEM Sample : W uatic Life?	/ater Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Clear Aqu	DEM Sample : Watic Life?	/ater Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C
SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Clear Aqu Result	DEM Sample : Watic Life?	/ater Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Clear Aqu Result 63.9 9 5.82 r 7.54 \$	DEM Sample : Watic Life?	/ater Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aqu Result 63.9 9 5.82 r 7.54 \$	IDEM Sample : Water Life? Market Life? Market Life? Market Life?	/ater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Aqu Result 63.9 9 5.82 r 7.54 8 919 1	DEM Sample : Watic Life? Mag/L SU Jumho/cm	/ater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Clear Result 63.9 9 5.82 r 7.54 9 919 t 19.87 9 6.83 f	DEM Sample : Watic Life? Mag/L SU Jumho/cm	/ater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Clear Result 63.9 9 5.82 r 7.54 8 919 t 19.87 9 6.83 r 5 l	MIDEM Sample : Wattic Life? Wattic Life? Wattic Life?	/ater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Aqu Result 63.9 9 5.82 r 7.54 8 919 0 19.87 9 6.83 f 5 L 3 L	MIDEM Sample : Wattic Life? Wattic Life? Wattic Life? Wattic Life?	/ater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

Tuesday, October 22, 2013 Page 161 of 207

Lab ID # : A991496		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		220	mg/L	50	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		370	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		4	mg/L	1	SM2540D
Solids, Total (TS)		630	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		530	mg/L	10	SM2540C
Sulfate		110	mg/L	1.3	EPA 300.0
COD		23	mg/L	10	EPA 410.4
Nitrogen, Ammonia		0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.12	mg/L	0.01	EPA 353.2
Phosphorus, Total		< 0.05	mg/L	0.05	EPA 365.1
TKN		0.51	mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB14007		Result		Reporting Limit	Method
Coliforms (Total)	·	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		517.2	MPN/100mL	1	SM9223B
SiteID: LMG-05-0024 Water Flow Type Run	Sample Date: 9/10/2013 Water Appearance	Clear	IDEM Sample	#: AB12832 Vater Depth	✓ Algae?
Nater Flow Type Run	·	Clear	_		
Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance	Clear	V	later Depth	
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	V	later Depth	
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	Vuatic Life?	/ater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Clear Aq Result	vuatic Life?	/ater Depth Canopy Closed %	0-20%
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Aq Result	vuatic Life? % mg/L	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Clear Aq Result 49.6 4.44 7.72	vuatic Life? % mg/L	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aq Result 49.6 4.44 7.72	wuatic Life? % mg/L SU umho/cm	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Clear Aq Result 49.6 4.44 7.72 1182 20.62	wuatic Life? % mg/L SU umho/cm	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Clear Aq Result 49.6 4.44 7.72 1182 20.62 0.8	wuatic Life? % mg/L SU umho/cm °C	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Clear Aq Result 49.6 4.44 7.72 1182 20.62 0.8 5	wuatic Life? % mg/L SU umho/cm °C NTU	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Clear Aq Result 49.6 4.44 7.72 1182 20.62 0.8 5 1	wuatic Life? % mg/L SU umho/cm °C NTU Lookup	/ater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Clear Aq Result 49.6 4.44 7.72 1182 20.62 0.8 5 1 27	wuatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	/ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Clear Aq Result 49.6 4.44 7.72 1182 20.62 0.8 5 1 27	wuatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	/ater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Clear Aq Result 49.6 4.44 7.72 1182 20.62 0.8 5 1 27 1 Result	wuatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 162 of 207

SitelD: 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 #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	89.7 %	%		ASTM D888-09(C)
DO	7.78 n	ng/L		ASTM D888-09(C)
pH (Field)	7.82 S	SU		EPA 150.2
Specific Conductance (Field)	1169 u	umho/cm		SM2510B
Temperature	22.25 °	°C		SM2550B(2)
Turbidity (Hach)	2.2 N	UTV		EPA 180.1
Air Temp	6 L	_ookup		Observation
Sky Conditions	1 L	_ookup		Observation
Wind Direction	27 L	_ookup		Observation
Wind Strength	1 L	_ookup		Observation
Lab ID # : A994713	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	390 n	ng/L	50	EPA 310.2
Chloride	91 n	ng/L	1.3	EPA 300.0
Hardness (as CaCO3)	540 n	ng/L	1	SM2340B
Solids, Suspended Total, (TSS)	2 n	ng/L	1	SM2540D
Solids, Total (TS)	740 n	ng/L	10	SM2540B
Solids, Total Dissolved (TDS)	720 n	mg/L	10	SM2540C
Sulfate	130 n	mg/L	1.3	EPA 300.0
COD	14 n	mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1 n	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.2 n	mg/L	0.01	EPA 353.2
Phosphorus, Total	< 0.05 n	mg/L	0.05	EPA 365.1
TKN	0.33 n	mg/L	0.3	SM4500N(Org)-D
TOC	3.5 n	mg/L	1	SM5310C

Tuesday, October 22, 2013 Page 163 of 207

SiteID: LMG-05-0024	Sample Date:	9/17/2013		IDEM Sample	e #: AB12871	
Vater Flow Type Run	Water	Appearance	Clear		Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flo	w Estimated?		uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			66	%		ASTM D888-09(C)
DO			6.94	mg/L		ASTM D888-09(C)
pH (Field)			7.82	-		EPA 150.2
Specific Conductance (Field)			1200	umho/cm		SM2510B
Temperature			13.01	°C		SM2550B(2)
Turbidity			1.4	NTU		SM2130B Mod
Air Temp				Lookup		Observation
Sky Conditions				Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
Lab ID # : AB12871			Result		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	Sample Date:	9/24/2013	123.6	MPN/100mL	1 e #: AB12910	SM9223B
	Sample Date:	9/24/2013 Appearance	123.6 Clear	IDEM Sample		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0024 Water Flow Type Run	Water		Clear	IDEM Sample	e # : AB12910	✓ Algae?
E. coli SiteID: LMG-05-0024	Water	Appearance	Clear	IDEM Sample	e #: AB12910 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec):	Water	Appearance	Clear	IDEM Sample	e #: AB12910 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water	Appearance	Clear ✓ Aq	IDEM Sampl	e #: AB12910 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result	IDEM Sampl	e #: AB12910 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result	IDEM Sample puatic Life? % mg/L	e #: AB12910 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Clear Result 64.8 6.77 7.61	IDEM Sample puatic Life? % mg/L	e #: AB12910 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	Clear Result 64.8 6.77 7.61	JUEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12910 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 64.8 6.77 7.61 1065 13.33	JUEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12910 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0024 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 64.8 6.77 7.61 1065 13.33 5.5	JUEM Sample Juatic Life?	e #: AB12910 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water	Appearance	Clear Result 64.8 6.77 7.61 1065 13.33 5.5 3	JUEM Sample Juatic Life?	e #: AB12910 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 64.8 6.77 7.61 1065 13.33 5.5 3 1	"We will be solved by the second by the second by the second be second by the second b	e #: AB12910 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0024 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water	Appearance	Clear Result 64.8 6.77 7.61 1065 13.33 5.5 3 1	JUEM Sample Juatic Life?	e #: AB12910 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water	Appearance	Clear Result 64.8 6.77 7.61 1065 13.33 5.5 3 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12910 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0024 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Clear Result 64.8 6.77 7.61 1065 13.33 5.5 3 1 9 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12910 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 164 of 207

		W	eather Code Def	initions	
_	C		WD	ws	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 165 of 207

SiteID:LMG-05-0025USGS Hydrologic Unit:040400010503Stream Name:Johnson DitchCounty:Lake

Description: Oak Ridge Prairie County Park **Latitude:** 41 31 2.36617 **Longitude:** -87 23 45.32733

Drainage: 2.131 **Site Number:** 13T-030

SitelD: LMG-05-0025 **Sample Date:** 7/10/2013 **IDEM Sample #:** AB13602

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	<u>Method</u>
% Sat	63.8	%		ASTM D888-09(C)
DO	5.43	mg/L		ASTM D888-09(C)
pH (Field)	7.67	SU		EPA 150.2
Specific Conductance (Field)	586	umho/cm		SM2510B
Temperature	24.58	°C		SM2550B(2)
Turbidity (Hach)	2.66	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988990	<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	190	mg/L	10	EPA 310.2
Chloride	32	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	230	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	< 1	mg/L	1	SM2540D
Solids, Total (TS)	330	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	330	mg/L	10	SM2540C
Sulfate	41	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	0.045	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.056	mg/L	0.05	EPA 365.1
TKN	0.57	mg/L	0.3	SM4500N(Org)-D
TOC		mg/L	1	SM5310C
Lab ID # : AB13602	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	178.9	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 166 of 207

SiteID: LMG-05-0025 **Sample Date:** 7/23/2013 **IDEM Sample #:** AB11748

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

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

Sampler Comments: Turbidity taken with Hach

b ID #:	Result	Reporting Limit Method
% Sat	107.7 %	SM4500-OG
DO	8.49 mg/L	SM4500-OG
pH (Field)	8.16 SU	EPA 150.2
Specific Conductance (Field)	488 umh	o/cm SM2510B
Temperature	26.74 °C	SM2550B(2)
Turbidity	NTU	SM2130B Mod
Air Temp	4 Look	cup Observation
Sky Conditions	4 Look	Sup Observation
Wind Direction	27 Look	cup Observation
Wind Strength	2 Look	cup Observation

SitelD: LMG-05-0025 **Sample Date:** 8/7/2013 **IDEM Sample #:** AB14009

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

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

Sampler Comments:

b ID #:	Result	Reporting Limit Method
% Sat	50 %	ASTM D888-09(C)
DO	4.3 mg/L	ASTM D888-09(C)
pH (Field)	7.72 SU	EPA 150.2
Specific Conductance (Field)	568 umho/cr	m SM2510B
Temperature	22.68 °C	SM2550B(2)
Turbidity (Hach)	4.87 NTU	EPA 180.1
Air Temp	5 Lookup	Observation
Sky Conditions	2 Lookup	Observation
Wind Direction	27 Lookup	Observation
Wind Strength	1 Lookup	Observation

Tuesday, October 22, 2013 Page 167 of 207

Lab ID # : A991497		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		210	mg/L	50	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1	-	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.018	-	0.01	EPA 353.2
Phosphorus, Total		< 0.05	-	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB14009		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli			MPN/100mL	1	SM9223B
SiteID: LMG-05-0025	Sample Date: 9/10/2013 Water Appearance	Clear	IDEM Sample	#: AB12834 Vater Depth	✓ Algae?
	•		•		-
Water Flow Type Run	Water Appearance		V	Vater Depth	-
Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance		V	Vater Depth	-
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	✓ Aq	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V Juatic Life?	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	V quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 45.1 3.78 7.79	V quatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 45.1 3.78 7.79	watic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 45.1 3.78 7.79 579 24.2	watic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 45.1 3.78 7.79 579 24.2 2.9	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 45.1 3.78 7.79 579 24.2 2.9 5	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result 45.1 3.78 7.79 579 24.2 2.9 5 1	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 45.1 3.78 7.79 579 24.2 2.9 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 45.1 3.78 7.79 579 24.2 2.9 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 45.1 3.78 7.79 579 24.2 2.9 5 1 27 3 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	0-20% Method ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 168 of 207

SitelD: 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
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		mg/L	0.3	SM4500N(Org)-D
TOC		mg/L	1	SM5310C

Tuesday, October 22, 2013 Page 169 of 207

SiteID: LMG-05-0025	Sample Date:	9/17/2013		IDEM Sample	e #: AB12873	
Water Flow Type Stagnant	Water	Appearance	Clear		Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flov	w Estimated?	□ Ac	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:			,		.,	
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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				Lookup		Observation
Sky Conditions				Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
g						
Lab ID # : AB12873			<u>Result</u>		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	Sample Date:	9/24/2013	96	MPN/100mL	1 e #· AB12912	SM9223B
SiteID: LMG-05-0025	Sample Date:	9/24/2013 Appearance	96 Clear	IDEM Sampl	<u> </u>	SM9223B ✓ Algae?
SiteID: LMG-05-0025 Water Flow Type Pool	Water		Clear	IDEM Sampl	e#: AB12912	✓ Algae?
SiteID: LMG-05-0025	Water	Appearance	Clear	IDEM Sampl	e #: AB12912 Water Depth	✓ Algae?
SiteID: LMG-05-0025 Water Flow Type Pool Water Flow (cf/sec):	Water	Appearance	Clear	IDEM Sampl	e #: AB12912 Water Depth	✓ Algae?
SiteID: LMG-05-0025 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments:	Water	Appearance	Clear	IDEM Sampl	e #: AB12912 Water Depth Canopy Closed %	✓ Algae? 0-20%
SiteID: LMG-05-0025 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Clear Aq Result	IDEM Sampl	e #: AB12912 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0025 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Aq Result 50 4.92	IDEM Sample quatic Life?	e #: AB12912 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0025 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Clear Aq Result 50 4.92 7.8	IDEM Sample quatic Life? % mg/L	e #: AB12912 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0025 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	Clear Aq Result 50 4.92 7.8	JUEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12912 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0025 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Clear Result 50 4.92 7.8 583 16.11	JUEM Sample Juatic Life? % mg/L SU umho/cm	e #: AB12912 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0025 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 50 4.92 7.8 583 16.11 6	### Complete	e #: AB12912 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0025 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 50 4.92 7.8 583 16.11 6 3	JUEM Sample Juatic Life?	e #: AB12912 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0025 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 50 4.92 7.8 583 16.11 6 3 1	"We will be solved by the second by the second by the second be second by the second b	e #: AB12912 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0025 Nater Flow Type Pool Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Clear Result 50 4.92 7.8 583 16.11 6 3 1	JUEM Sample Juatic Life?	e #: AB12912 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0025 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water	Appearance	Clear Result 50 4.92 7.8 583 16.11 6 3 1	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12912 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0025 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Clear Result 50 4.92 7.8 583 16.11 6 3 1 9 2 Result	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12912 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 170 of 207

		W	eather Code Def	initions	
S	C		WD	WS	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 171 of 207

SiteID:LMG-05-0026USGS Hydrologic Unit:040400010503Stream Name:Tributary of Turkey CreekCounty: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:** 7/10/2013 **IDEM Sample #:** AB13603

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	<u>Method</u>
% Sat	75.5	%		ASTM D888-09(C)
DO	6.32	mg/L		ASTM D888-09(C)
pH (Field)	7.8	SU		EPA 150.2
Specific Conductance (Field)	456	umho/cm		SM2510B
Temperature	24.27	°C		SM2550B(2)
Turbidity (Hach)	39.2	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988991	<u>Result</u>		Reporting Limit	Method
Alkalinity (as CaCO3)	150	mg/L	10	EPA 310.2
Chloride	35	mg/L	2.5	EPA 300.0
Hardness (as CaCO3)	180	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	27	mg/L	1	SM2540D
Solids, Total (TS)	300	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	250	mg/L	10	SM2540C
Sulfate	22	mg/L	0.25	EPA 300.0
COD	41	mg/L	10	EPA 410.4
Nitrogen, Ammonia	< 0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.23	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.18	mg/L	0.05	EPA 365.1
TKN	0.73	mg/L	0.3	SM4500N(Org)-D
TOC	11	mg/L	1	SM5310C
Lab ID #: AB13603	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1553.1	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 172 of 207

SiteID: LMG-05-0026 Sample Date: 7/23/2013 IDEM Sample #: AB11749 **Water Depth** ✓ Algae? Water Flow Type Pool Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Turbidity with Hach = 30.4 Lab ID #: Result Reporting Limit **Method** 69.1 % SM4500-OG % Sat DO 5.84 mg/L SM4500-OG 7.89 SU pH (Field) EPA 150.2 Specific Conductance (Field) 411 umho/cm SM2510B Temperature 23.3 °C SM2550B(2) Turbidity (Hach) 30.4 NTU EPA 180.1 Air Temp 4 Lookup Observation 4 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0026 Sample Date: IDEM Sample #: AB14010 8/7/2013 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Murky ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 81.5 % ASTM D888-09(C) % Sat DO 7.25 mg/L ASTM D888-09(C) pH (Field) 7.68 SU EPA 150.2 Specific Conductance (Field) 81.5 umho/cm SM2510B 21.05 °C SM2550B(2) Temperature Turbidity (Hach) 34.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 173 of 207

Lab ID # : A991498		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		110	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		170	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		15	mg/L	1	SM2540D
Solids, Total (TS)		290	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		230	mg/L	10	SM2540C
Sulfate		29	mg/L	1.3	EPA 300.0
COD		24	mg/L	10	EPA 410.4
Nitrogen, Ammonia		0.14	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.18	mg/L	0.01	EPA 353.2
Phosphorus, Total		0.11	mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB14010		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		488.4	MPN/100mL	1	SM9223B
SiteID: LMG-05-0026 Water Flow Type Run	Sample Date: 9/10/2013 Water Appearance	Clear	IDEM Sample	#: AB12835 Vater Depth	✓ Algae?
Water Flow Type Run	·		_		
Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance		V	Vater Depth	
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance		V	Vater Depth	
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Aq	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	yuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 82.3 7.4 7.79	yuatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 82.3 7.4 7.79	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 82.3 7.4 7.79 339 20.48	% mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 82.3 7.4 7.79 339 20.48 4.3	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 82.3 7.4 7.79 339 20.48 4.3 5	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 82.3 7.4 7.79 339 20.48 4.3 5 1	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 82.3 7.4 7.79 339 20.48 4.3 5 1 27	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 82.3 7.4 7.79 339 20.48 4.3 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 82.3 7.4 7.79 339 20.48 4.3 5 1 27 2 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 174 of 207

SiteID: LMG-05-0026	Sample Date: 9/11/2013	IDE	M Sample #: AB14626	
Water Flow Type Glide	Water Appearance	Clear	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatio	Life? Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		86.5 %		ASTM D888-09(C)
DO		7.88 mg/l	L	ASTM D888-09(C)
pH (Field)		7.56 SU		EPA 150.2
Specific Conductance (Field)		317 umh	o/cm	SM2510B
Temperature		19.86 °C		SM2550B(2)
Turbidity (Hach)		2.53 NTU	J	EPA 180.1
Air Temp		5 Look	кир	Observation
Sky Conditions		1 Look	кир	Observation
Wind Direction		27 Look	кир	Observation
Wind Strength		1 Look	кир	Observation
Lab ID #: A994715		Result	Reporting Limit	Method
Alkalinity (as CaCO3)		130 mg/	_ 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

Tuesday, October 22, 2013 Page 175 of 207

SiteID : LMG-05-0026	Sample Date: 9/17/2013	IDEM Samp	ole #: AB12874	
Nater Flow Type Stagnant	Water Appearance	Clear	Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% 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
		686.7 MPN/100mL	1	SM9223B
Coliforms (Total)		000.7 IVII IN TOOTIL	•	
Coliforms (Total) E. coli SiteID: LMG-05-0026	Sample Date: 9/24/2013	6.3 MPN/100mL	. 1	SM9223B
E. coli SitelD: LMG-05-0026	Sample Date: 9/24/2013 Water Appearance	6.3 MPN/100mL	. 1	
E. coli SiteID: LMG-05-0026 Water Flow Type Run	•	6.3 MPN/100mL	. 1 ole #: AB12913	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0026	Water Appearance	6.3 MPN/100mL IDEM Samp	ole #: AB12913 Water Depth	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	6.3 MPN/100mL IDEM Samp	ole #: AB12913 Water Depth	SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	6.3 MPN/100mL IDEM Samp Murky Aquatic Life?	ole #: AB12913 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20%
E. coli SiteID: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	6.3 MPN/100mL IDEM Samp Murky Aquatic Life? Result	ole #: AB12913 Water Depth Canopy Closed %	SM9223B Algae? 0-20% Method
E. coli SiteID: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	6.3 MPN/100mL IDEM Samp Murky Aquatic Life? Result 80.8 %	ole #: AB12913 Water Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C)
E. coli SitelD: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	6.3 MPN/100mL IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L	ole #: AB12913 Water Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	6.3 MPN/100mL IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L 7.82 SU	ole #: AB12913 Water Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	6.3 MPN/100mL IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L 7.82 SU 409 umho/cm	ole #: AB12913 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	6.3 MPN/100mL IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L 7.82 SU 409 umho/cm 15.3 °C	ole #: AB12913 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L 7.82 SU 409 umho/cm 15.3 °C 20.4 NTU	ole #: AB12913 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SitelD: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L 7.82 SU 409 umho/cm 15.3 °C 20.4 NTU 3 Lookup	ole #: AB12913 Water Depth Canopy Closed %	SM9223B ✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SitelD: LMG-05-0026 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: ** Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L 7.82 SU 409 umho/cm 15.3 °C 20.4 NTU 3 Lookup 1 Lookup	ole #: AB12913 Water Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SiteID: LMG-05-0026 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L 7.82 SU 409 umho/cm 15.3 °C 20.4 NTU 3 Lookup 1 Lookup 9 Lookup	ole #: AB12913 Water Depth Canopy Closed %	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0026 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	IDEM Samp Murky Aquatic Life? Result 80.8 % 8.09 mg/L 7.82 SU 409 umho/cm 15.3 °C 20.4 NTU 3 Lookup 1 Lookup 9 Lookup 2 Lookup	ole #: AB12913 Water Depth Canopy Closed % Reporting Limit	SM9223B Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 176 of 207

		W	eather Code Def	initions	
_	C		WD	ws	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 177 of 207

SiteID:LMG-05-0027USGS Hydrologic Unit:040400010503Stream Name:Turkey CreekCounty:Lake

Description: SR 55 **Latitude:** 41 29 55.14927 **Longitude:** -87 21 53.14879

Drainage: 21.179 Site Number: 13T-032

Water Flow Type Glide Water Appearance Murky Water Depth Algae?

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

Sampler Comments:

Lab ID #:	Result		Reporting Limit	Method
% Sat	61.1	%		ASTM D888-09(C)
DO	5.2	mg/L		ASTM D888-09(C)
pH (Field)	7.62	SU		EPA 150.2
Specific Conductance (Field)	638	umho/cm		SM2510B
Temperature	23.32	°C		SM2550B(2)
Turbidity (Hach)	16.6	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Flow	20.7778	cf/sec		TM D5389-95/D3858
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988992	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	180	mg/L	10	EPA 310.2
Chloride	42	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	260	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	17	mg/L	1	SM2540D
Solids, Total (TS)	410	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350	mg/L	10	SM2540C
Sulfate	50	mg/L	1.3	EPA 300.0
COD	38	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.1	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.66	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.092	mg/L	0.05	EPA 365.1
TKN	0.83	mg/L	0.3	SM4500N(Org)-D
TOC	9.1	mg/L	1	SM5310C
Lab ID #: AB13604	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	517.2	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 178 of 207

SiteID: LMG-05-0027 Sample Date: 7/23/2013 IDEM Sample #: AB11750 ✓ Algae? Water Flow Type Run Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 54.3 % SM4500-OG % Sat DO 4.58 mg/L SM4500-OG 7.75 SU pH (Field) EPA 150.2 Specific Conductance (Field) 682 umho/cm SM2510B Temperature 23.63 °C SM2550B(2) Turbidity (Hach) 10.1 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Lookup Observation Wind Direction Lookup Observation Wind Strength Observation 1 Lookup SiteID: LMG-05-0027 Sample Date: IDEM Sample #: AB14011 8/7/2013 ✓ Algae? **Water Depth Water Flow Type** Glide Water Appearance Clear ✓ Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result 62.4 % ASTM D888-09(C) % Sat DO 5.47 mg/L ASTM D888-09(C) pH (Field) 7.75 SU EPA 150.2 Specific Conductance (Field) 811 umho/cm SM2510B 21.82 °C Temperature SM2550B(2) Turbidity (Hach) 5.93 NTU EPA 180.1 Air Temp 4 Lookup Observation Flow TM D5389-95/D3858 3.2559 cf/sec Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 179 of 207

Lab ID # : A991499		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		240	mg/L	20	EPA 310.2
Chloride		53	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		370	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)		5	mg/L	1	SM2540D
Solids, Total (TS)		560	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)		490	mg/L	10	SM2540C
Sulfate		140	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		0.038	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		5.5	mg/L	1	SM5310C
Lab ID # : AB14011		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		866.4	MPN/100mL	1	SM9223B
SiteID: LMG-05-0027 Water Flow Type Run	Sample Date: 9/10/2013 Water Appearance	Murky	IDEM Sample	#: AB12836 Vater Depth	✓ Algae?
Water Flow Type Run	•	_	V	Vater Depth	
Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance	_	_		
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	_	V	Vater Depth	
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments:	Water Appearance	☐ Aq	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Result	V Juatic Life?	Vater Depth Canopy Closed %	0-20%
Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Result	viguatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Result 63 5.29 7.91	viguatic Life? % mg/L	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Result 63 5.29 7.91	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Result 63 5.29 7.91 819 24.02	yuatic Life? % mg/L SU umho/cm	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Result 63 5.29 7.91 819 24.02 7.3	% mg/L SU umho/cm °C	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Result 63 5.29 7.91 819 24.02 7.3 5	% mg/L SU umho/cm °C NTU	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Result 63 5.29 7.91 819 24.02 7.3 5	% mg/L SU umho/cm °C NTU Lookup	Vater Depth Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Result 63 5.29 7.91 819 24.02 7.3 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Result 63 5.29 7.91 819 24.02 7.3 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Result 63 5.29 7.91 819 24.02 7.3 5 1 27 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 180 of 207

SitelD: 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:

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
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	ma/l	0.05	EPA 365.1
rnosphorus, rotai	0.030	9/ =		
TKN	0.35		0.3	SM4500N(Org)-D

Tuesday, October 22, 2013 Page 181 of 207

SiteID: LMG-05-0027	Sample Date : 9/17/2013		IDEM Sample	e #: AB12875	
Nater Flow Type Run	Water Appearance	Clear		Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	☐ Aqı	uatic 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			Lookup		Observation
Wind Strength		1	Lookup		Observation
Lab ID # : AB12875		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
Comornia (Total)					
E. coli SiteID: LMG-05-0027	Sample Date: 9/24/2013	185	MPN/100mL	1 e#: AB12914	SM9223B
E. coli SiteID: LMG-05-0027	Sample Date: 9/24/2013 Water Appearance	185	IDEM Sampl		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0027 Vater Flow Type Run	·	185	IDEM Sampl	e#: AB12914	✓ Algae?
E. coli SiteID: LMG-05-0027 Nater Flow Type Run Nater Flow (cf/sec):	Water Appearance	185	IDEM Sampl	e #: AB12914 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	185	IDEM Sampl	e #: AB12914 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	IDEM Sampl	e #: AB12914 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Clear Aqu Result	IDEM Sample uatic Life?	e #: AB12914 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aqu Result	IDEM Sample uatic Life? % mg/L	e #: AB12914 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Clear Aqu Result 74.4 7.59 7.89	IDEM Sample uatic Life? % mg/L	e #: AB12914 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Clear Aqu Result 74.4 7.59 7.89	IDEM Sample uatic Life? % mg/L SU umho/cm	e #: AB12914 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Clear Aqu Result 74.4 7.59 7.89 793 14.35	IDEM Sample uatic Life? % mg/L SU umho/cm	e #: AB12914 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Clear Aqu Result 74.4 7.59 7.89 793 14.35 7.1	IDEM Sample uatic Life? % mg/L SU umho/cm °C	e #: AB12914 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SitelD: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: ** Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water Appearance	Clear Result 74.4 7.59 7.89 793 14.35 7.1 3	IDEM Sample uatic Life? % mg/L SU umho/cm °C NTU	e #: AB12914 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Clear Result 74.4 7.59 7.89 793 14.35 7.1 3 1	IDEM Sample uatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12914 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SitelD: LMG-05-0027 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: ** Sat* DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water Appearance	Clear Result 74.4 7.59 7.89 793 14.35 7.1 3 1 27	IDEM Sample uatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12914 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SitelD: LMG-05-0027 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Clear Result 74.4 7.59 7.89 793 14.35 7.1 3 1 27	"C" NTU Lookup Lookup Lookup	e #: AB12914 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0027 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water Appearance	Clear Result 74.4 7.59 7.89 793 14.35 7.1 3 1 27 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12914 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 182 of 207

		W	eather Code Def	initions	
_	C		WD	ws	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 183 of 207

SiteID:LMG-05-0028USGS Hydrologic Unit:040400010503Stream Name:Tributary of Turkey CreekCounty: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:** 7/10/2013 **IDEM Sample #:** AB13605

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	<u>Method</u>
% Sat	83.1	%		ASTM D888-09(C)
DO	7.14	mg/L		ASTM D888-09(C)
pH (Field)	7.9	SU		EPA 150.2
Specific Conductance (Field)	483	umho/cm		SM2510B
Temperature	22.85	°C		SM2550B(2)
Turbidity (Hach)	32.6	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988993	<u>Result</u>		Reporting Limit	Method
Alkalinity (as CaCO3)	160	mg/L	10	EPA 310.2
Chloride	30	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	200	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	14	mg/L	1	SM2540D
Solids, Total (TS)	320	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260	mg/L	10	SM2540C
Sulfate	21	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	0.75	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.13	mg/L	0.05	EPA 365.1
TKN	0.86	mg/L	0.3	SM4500N(Org)-D
TOC	7.9	mg/L	1	SM5310C
Lab ID # : AB13605	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	2419.6	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 184 of 207

SiteID: LMG-05-0028 Sample Date: 7/23/2013 IDEM Sample #: AB11751 ✓ Algae? Water Flow Type Water Appearance Murky Water Depth ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Turbidity taken with Hach = 23.1 Lab ID #: Result Reporting Limit **Method** 17.2 % SM4500-OG % Sat DO 1.46 mg/L SM4500-OG 7.51 SU pH (Field) EPA 150.2 Specific Conductance (Field) 702 umho/cm SM2510B Temperature 23.55 °C SM2550B(2) Turbidity (Hach) 23.1 NTU EPA 180.1 Air Temp 5 Lookup Observation 3 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0028 Sample Date: IDEM Sample #: AB14012 8/7/2013 ✓ Algae? **Water Depth Water Flow Type** Glide Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 21.7 % ASTM D888-09(C) % Sat DO 1.97 mg/L ASTM D888-09(C) pH (Field) 7.56 SU EPA 150.2 Specific Conductance (Field) 967 umho/cm SM2510B 20.74 °C SM2550B(2) Temperature Turbidity (Hach) 7.1 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 185 of 207

Result

Reporting Limit

Method

Lab ID #: A991500

% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		22.52 ° 34.5 N 5 L 1 L 27 L	mg/L SU umho/cm PC	Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Method
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction		24.8 ° 2.14 r 7.5 ° 1241 t 22.52 ° 34.5 ° 5 L 1 L 27 L	mg/L SU umho/cm PC NTU Lookup Lookup Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction		24.8 ° 2.14 r 7.5 ° 1241 t 22.52 ° 34.5 ° 5 L 1 L 27 L	mg/L SU umho/cm PC NTU Lookup Lookup Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions		24.8 ° 2.14 r 7.5 ° 1241 u 22.52 ° 34.5 N 5 L	mg/L SU umho/cm CC NTU Lookup Lookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp		24.8 ° 2.14 r 7.5 ° 1241 u 22.52 ° 34.5 N	mg/L SU umho/cm PC NTU _ookup	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
% Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity		24.8 9 2.14 r 7.5 \$ 1241 t 22.52 °	mg/L SU umho/cm PC	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
% Sat DO pH (Field) Specific Conductance (Field) Temperature		24.8 9 2.14 r 7.5 \$ 1241 t 22.52 °	mg/L SU umho/cm PC	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
% Sat DO pH (Field)		24.8 % 2.14 r 7.5 %	mg/L SU umho/cm	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
% Sat DO		24.8 °2.14 r	mg/L	Reporting Limit	ASTM D888-09(C) ASTM D888-09(C)
		24.8		Reporting Limit	ASTM D888-09(C)
			%	Reporting Limit	
_ab ID #:		Result		Reporting Limit	Method
	dam upstream of site	- ⊢ Aqu	uuio Liie:	оанору сновей %	0-20 /0
Vater Flow (cf/sec):	☐ Flow Estimate		atic Life?	Canopy Closed %	-
iteID: LMG-05-0028	Sample Date: 9/10/201 Water Appearar		DEM Sample :	#: AB12837 Vater Depth	✓ Algae?
E. coli		866.4 1	MPN/100mL	1	SM9223B
Coliforms (Total)			MPN/100mL	2419.6	SM9223B
.ab ID #: AB14012		Result		Reporting Limit	<u>Method</u>
TOC		6.9 r	mg/L	1	SM5310C
TKN		0.79 r	-	0.3	SM4500N(Org)-D
Phosphorus, Total		0.071 r	-	0.05	EPA 365.1
Nitrogen, Nitrate+Nitrite		0.013 r	-	0.01	EPA 353.2
Nitrogen, Ammonia		< 0.1 r	-	0.1	SM4500NH3-G
COD		24 r	-	10	EPA 410.4
Solids, Total Dissolved (TDS) Sulfate		36 r	-	1.3	EPA 300.0
		360 r	-	10	SM2540B
		430 r	-	10	SM2540B
Solids, Total (TS)		290 r	ng/L mg/L	1 1	SM2340B SM2540D
Solids, Suspended Total, (TSS) Solids, Total (TS)			mg/L	1.3	EPA 300.0
		54 [/1	4.0	

Tuesday, October 22, 2013 Page 186 of 207

SiteID: LMG-05-0028	Sample Date: 9/11/2013	IDEM Sam	ple #: 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	<u>Method</u>
% 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
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

Tuesday, October 22, 2013 Page 187 of 207

SiteID: LMG-05-0028	Sample Date : 9/17/2013		IDEM Sample	e #: AB12876	
Nater Flow Type Stagnant	Water Appearance	Murky		Water Depth	✓ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aqı	uatic Life?	Canopy Closed %	0-20%
campler Comments: Rip rap o	dam upstream of site				
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% 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			Lookup		Observation
Wind Direction			Lookup		Observation
Wind Strength			Lookup		Observation
Lab ID # : AB12876		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
Comornia (Total)					
E. coli SitelD: LMG-05-0028	Sample Date: 9/24/2013		MPN/100mL IDEM Sample	1 e #: AB12915	SM9223B
E. coli SiteID: LMG-05-0028	Sample Date: 9/24/2013 Water Appearance		IDEM Sample		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0028 Water Flow Type Run	•	Clear	IDEM Sample	e#: AB12915	✓ Algae?
E. coli SiteID: LMG-05-0028 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	Clear	IDEM Sampl	e #: AB12915 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of	Water Appearance Flow Estimated?	Clear	IDEM Sampl	e #: AB12915 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of Lab ID #:	Water Appearance Flow Estimated?	Clear Aqu Result	IDEM Sample uatic Life?	e #: AB12915 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of	Water Appearance Flow Estimated?	Clear Aqu	IDEM Sample uatic Life?	e #: AB12915 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of Lab ID #:	Water Appearance Flow Estimated?	Clear Aqu Result	IDEM Sample uatic Life? % mg/L	e #: AB12915 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of the color of the col	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87	IDEM Sample uatic Life? % mg/L	e #: AB12915 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli iitelD: LMG-05-0028 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: Rip rap of the color	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87	IDEM Sample uatic Life? % mg/L SU umho/cm	e #: AB12915 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Rip rap of the color of the colo	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87 620 12.77	IDEM Sample uatic Life? % mg/L SU umho/cm	e #: AB12915 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli iitelD: LMG-05-0028 /ater Flow Type Run /ater Flow (cf/sec): ampler Comments: Rip rap of the color	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87 620 12.77 7.4	IDEM Sample uatic Life? % mg/L SU umho/cm °C	e #: AB12915 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SitelD: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of the color of the col	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87 620 12.77 7.4 3	IDEM Sample uatic Life? % mg/L SU umho/cm °C NTU	e #: AB12915 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of the color of the col	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87 620 12.77 7.4 3 1	IDEM Sample uatic Life? % mg/L SU umho/cm °C NTU Lookup	e #: AB12915 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of the color of the col	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87 620 12.77 7.4 3 1 27	"C" NTU Lookup Lookup	e #: AB12915 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SitelD: LMG-05-0028 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Rip rap of the comments of the comm	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87 620 12.77 7.4 3 1 27	"W" mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12915 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0028 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Rip rap of the color of the colo	Water Appearance Flow Estimated?	Clear Result 86.4 9.13 7.87 620 12.77 7.4 3 1 27 2 Result	"W" mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12915 Water Depth Canopy Closed % Reporting Limit	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 188 of 207

		W	eather Code Def	initions	
_	C		WD	ws	AT
Sky Co	nditions	1	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	

Tuesday, October 22, 2013 Page 189 of 207

SiteID:LMG-05-0029USGS Hydrologic Unit:040400010505Stream Name:Tributary of Turkey CreekCounty: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:** 7/10/2013 **IDEM Sample #:** AB13606

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	<u>Method</u>
% Sat	35.8	%		ASTM D888-09(C)
DO	3.04	mg/L		ASTM D888-09(C)
pH (Field)	7.31	SU		EPA 150.2
Specific Conductance (Field)	536	umho/cm		SM2510B
Temperature	23.38	°C		SM2550B(2)
Turbidity (Hach)	3.83	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	4	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID # : A988994	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	150	mg/L	10	EPA 310.2
Chloride	56	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	170	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	3	mg/L	1	SM2540D
Solids, Total (TS)	340	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280	mg/L	10	SM2540C
Sulfate	18	mg/L	1.3	EPA 300.0
COD	36	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.15	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.18	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.13	mg/L	0.05	EPA 365.1
TKN	1	mg/L	0.3	SM4500N(Org)-D
TOC	10	mg/L	1	SM5310C
Lab ID # : AB13606	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	125 9	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 190 of 207

SiteID: LMG-05-0029 Sample Date: 7/23/2013 IDEM Sample #: AB11752 **Water Depth** ✓ Algae? Water Flow Type Riffle Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 4.7 % SM4500-OG % Sat DO 0.41 mg/L SM4500-OG 7.5 SU pH (Field) EPA 150.2 Specific Conductance (Field) 783 umho/cm SM2510B Temperature 23.15 °C SM2550B(2) Turbidity (Hach) 58.9 NTU EPA 180.1 Air Temp 4 Lookup Observation 2 Lookup Sky Conditions Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: LMG-05-0029 Sample Date: IDEM Sample #: AB14013 8/7/2013 ✓ Algae? **Water Depth Water Flow Type** Glide Water Appearance Murky ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 24.4 % ASTM D888-09(C) % Sat 2.14 mg/L DO ASTM D888-09(C) 7.4 SU pH (Field) EPA 150.2 Specific Conductance (Field) 535 umho/cm SM2510B 22.51 °C SM2550B(2) Temperature Turbidity (Hach) 12.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 2 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 191 of 207

Lab ID # : A991501		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		100	mg/L	10	EPA 310.2
Chloride			mg/L	1.3	EPA 300.0
Hardness (as CaCO3)			mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			mg/L	1	SM2540D
Solids, Total (TS)			mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			mg/L	10	SM2540C
Sulfate			mg/L	1.3	EPA 300.0
COD			mg/L	10	EPA 410.4
Nitrogen, Ammonia			mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.059	-	0.01	EPA 353.2
Phosphorus, Total			mg/L	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	5	SM5310C
Lab ID # : AB14013		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		686.7	MPN/100mL	1	SM9223B
SiteID: LMG-05-0029 Water Flow Type Stagnant	Sample Date: 9/10/2013 Water Appearance	Murky	IDEM Sample		✓ Algae?
SiteID: LMG-05-0029 Water Flow Type Stagnant Water Flow (cf/sec):	·	Murky	IDEM Sample	#: AB12838	✓ Algae?
SiteID: LMG-05-0029 Water Flow Type Stagnant Water Flow (cf/sec):	Water Appearance	Murky	IDEM Sample	#: AB12838 Vater Depth	✓ Algae?
SiteID: LMG-05-0029 Vater Flow Type Stagnant Vater Flow (cf/sec): Sampler Comments:	Water Appearance	Murky	IDEM Sample	#: AB12838 Vater Depth	✓ Algae?
SiteID: LMG-05-0029 Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments:	Water Appearance	Murky	IDEM Sample V uatic Life?	#: AB12838 Vater Depth Canopy Closed %	✓ Algae? 0-20%
SiteID: LMG-05-0029 Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Murky Aq Result	IDEM Sample V uatic Life?	#: AB12838 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: LMG-05-0029 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #:	Water Appearance	Murky Aq Result	IDEM Sample V uatic Life? % mg/L	#: AB12838 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0029 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water Appearance	Murky Aq Result 8.4 0.71 7.4	IDEM Sample V uatic Life? % mg/L	#: AB12838 Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0029 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water Appearance	Murky Result 8.4 0.71 7.4 833	IDEM Sample V uatic Life? % mg/L SU umho/cm	#: AB12838 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0029 Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 8.4 0.71 7.4 833 23.89	IDEM Sample V uatic Life? % mg/L SU umho/cm	#: AB12838 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0029 Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 8.4 0.71 7.4 833 23.89 97.2	Muatic Life? % mg/L SU umho/cm °C NTU	#: AB12838 Vater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0029 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Murky Result 8.4 0.71 7.4 833 23.89 97.2 5	IDEM Sample V uatic Life? % mg/L SU umho/cm °C	#: AB12838 Vater Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0029 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 8.4 0.71 7.4 833 23.89 97.2 5 1	Muatic Life? % mg/L SU umho/cm °C NTU Lookup Lookup	#: AB12838 Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0029 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Appearance	Murky Result 8.4 0.71 7.4 833 23.89 97.2 5 1 27	IDEM Sample V uatic Life? % mg/L SU umho/cm °C NTU Lookup	#: AB12838 Vater Depth Canopy Closed %	■ Algae? 0-20% Method
SiteID: LMG-05-0029 Nater Flow Type Stagnant Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 8.4 0.71 7.4 833 23.89 97.2 5 1 27	"C" NTU Lookup Lookup Lookup	#: AB12838 Vater Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0029 Water Flow Type Stagnant Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water Appearance	Murky Result 8.4 0.71 7.4 833 23.89 97.2 5 1 27 2 Result	"C" NTU Lookup Lookup Lookup	#: AB12838 Vater Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 192 of 207

SiteID: LMG-05-0029	Sample Date: 9/11/2013	IDEM Sa	ample #: AB14629	
Water Flow Type Glide	Water Appearance	Brown	Water Depth	✓ Algae?
Water Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life	e? 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/cn	1	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
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

Tuesday, October 22, 2013 Page 193 of 207

SiteID: LMG-05-0029	Sample Date:	9/17/2013		IDEM Sampl	e #: AB12877	
Water Flow Type Run	Water	Appearance	Murky		Water Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flov	w Estimated?	□ Ac	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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				Lookup		Observation
Sky Conditions				Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
Lab ID # : AB12877			<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419 6	MPN/100mL	2419.6	SM9223B
			110.0	1VII 14/100111L	2110.0	OMOZZOB
E. coli	Sample Date:	9/24/2013	118.7	MPN/100mL IDEM Sampl	1 e #: AB12916	SM9223B
SiteID: LMG-05-0029	•	9/24/2013 Appearance	118.7 Murky	IDEM Sampl		SM9223B ✓ Algae?
SiteID: LMG-05-0029 Vater Flow Type Run	Water		Murky	IDEM Sampl	e#: AB12916	✓ Algae?
SiteID: LMG-05-0029 Water Flow Type Run Water Flow (cf/sec):	Water	Appearance w Estimated?	Murky	IDEM Sampl	e #: AB12916 Water Depth Canopy Closed %	✓ Algae?
SiteID: LMG-05-0029 Water Flow Type Run Water Flow (cf/sec):	Water	Appearance w Estimated?	Murky	IDEM Sampl	e #: AB12916 Water Depth Canopy Closed %	✓ Algae?
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Pipe dis	Water Flow	Appearance w Estimated?	Murky Accarge is foal	IDEM Sampl Juatic Life? my and picture	e #: AB12916 Water Depth Canopy Closed % was taken	✓ Algae? 0-20%
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Pipe dis	Water Flow	Appearance w Estimated?	Murky Accarge is foar Result 44.7	IDEM Sampl Juatic Life? my and picture	e #: AB12916 Water Depth Canopy Closed % was taken	✓ Algae? 0-20% Method
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Pipe dis Lab ID #:	Water Flow	Appearance w Estimated?	Murky Accarge is foar Result 44.7	IDEM Sampl Juatic Life? my and picture % mg/L	e #: AB12916 Water Depth Canopy Closed % was taken	✓ Algae? 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Pipe dis Lab ID #: % Sat DO	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53	IDEM Sampl Juatic Life? my and picture % mg/L	e #: AB12916 Water Depth Canopy Closed % was taken	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Pipe dis Lab ID #: % Sat DO pH (Field)	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53	JUEM Sampl Juatic Life? my and picture % mg/L SU umho/cm	e #: AB12916 Water Depth Canopy Closed % was taken	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Pipe dis Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53 560 15.38	JUEM Sampl Juatic Life? my and picture % mg/L SU umho/cm	e #: AB12916 Water Depth Canopy Closed % was taken	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Pipe dis Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53 560 15.38 18.7	JUEM Sampl Juatic Life? my and picture	e #: AB12916 Water Depth Canopy Closed % was taken	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Pipe dis Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53 560 15.38 18.7 3	JUEM Sampl Juatic Life? my and picture	e #: AB12916 Water Depth Canopy Closed % was taken	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Pipe dis Lab ID #: % Sat	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53 560 15.38 18.7 3 1	JUEM Sample Juatic Life? my and picture % mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12916 Water Depth Canopy Closed % was taken	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0029 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Pipe dis Lab ID #: % Sat	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53 560 15.38 18.7 3 1	JUEM Sampl Juatic Life? my and picture	e #: AB12916 Water Depth Canopy Closed % was taken	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0029 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Pipe dis Lab ID #: % Sat	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53 560 15.38 18.7 3 1	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12916 Water Depth Canopy Closed % was taken	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
SiteID: LMG-05-0029 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Pipe dis Lab ID #: % Sat	Water Flow	Appearance w Estimated?	Murky Acarge is foar Result 44.7 4.46 7.53 560 15.38 18.7 3 1 27 1 Result	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	e #: AB12916 Water Depth Canopy Closed % was taken Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 194 of 207

Weather Code Definitions								
_	C		WD	WS Wind Strength	AT			
Sky Co	Sky Conditions Wind Direction				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				

Tuesday, October 22, 2013 Page 195 of 207

SiteID:LMG-05-0030USGS Hydrologic Unit:040400010505Stream Name:Tributary of Turkey CreekCounty: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**: 7/10/2013 **IDEM Sample #**: AB13607

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	<u>Method</u>
% Sat	77.5 %		ASTM D888-09(C)
DO	6.5 mg/	Ľ	ASTM D888-09(C)
pH (Field)	7.78 SU		EPA 150.2
Specific Conductance (Field)	814 uml	no/cm	SM2510B
Temperature	24.08 °C		SM2550B(2)
Turbidity (Hach)	24 NT	J	EPA 180.1
Air Temp	4 Loo	kup	Observation
Sky Conditions	4 Loo	kup	Observation
Wind Direction	27 Loo	kup	Observation
Wind Strength	0 Loo	kup	Observation
Lab ID # : A988995	<u>Result</u>	Reporting Limit	Method
Alkalinity (as CaCO3)	110 mg/	L 10	EPA 310.2
Chloride	160 mg/	L 2.5	EPA 300.0
Hardness (as CaCO3)	160 mg/	L 1	SM2340B
Solids, Suspended Total, (TSS)	16 mg/	'L 1	SM2540D
Solids, Total (TS)	450 mg/	L 10	SM2540B
Solids, Total Dissolved (TDS)	410 mg/	L 10	SM2540C
Sulfate	37 mg/	L 2.5	EPA 300.0
COD	22 mg/	L 10	EPA 410.4
Nitrogen, Ammonia	< 0.1 mg/	L 0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.36 mg/	L 0.01	EPA 353.2
Phosphorus, Total	0.07 mg/	L 0.05	EPA 365.1
TKN	0.55 mg/	L 0.3	SM4500N(Org)-D
TOC	5 mg/	L 5	SM5310C
Lab ID # : AB13607	<u>Result</u>	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MP	N/100mL 2419.6	SM9223B
E. coli	> 2419.6 MP	N/100mL 2419.6	SM9223B

Tuesday, October 22, 2013 Page 196 of 207

SiteID: LMG-05-0030 Sample Date: 7/22/2013 IDEM Sample #: AB11753 **Water Depth** ✓ Algae? Water Flow Type Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Turbidity taken with Hach = 8.05 Lab ID #: Result Reporting Limit **Method** 71.2 % SM4500-OG % Sat DO 5.78 mg/L SM4500-OG 7.9 SU pH (Field) EPA 150.2 Specific Conductance (Field) 881 umho/cm SM2510B Temperature 25.12 °C SM2550B(2) Turbidity (Hach) 8.05 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Lookup Observation Wind Direction Lookup Observation Wind Strength Observation 1 Lookup SiteID: LMG-05-0030 Sample Date: IDEM Sample #: AB14014 8/7/2013 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Murky ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 75.4 % ASTM D888-09(C) % Sat DO 6.61 mg/L ASTM D888-09(C) pH (Field) 7.81 SU EPA 150.2 Specific Conductance (Field) 911 umho/cm SM2510B 21.81 °C SM2550B(2) Temperature Turbidity (Hach) 12.4 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 197 of 207

Lab ID # : A991502		<u>R</u>	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)			100	mg/L	10	EPA 310.2
Chloride				mg/L	2.5	EPA 300.0
Hardness (as CaCO3)			190	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)			6	mg/L	1	SM2540D
Solids, Total (TS)			560	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)			480	mg/L	10	SM2540C
Sulfate			65	mg/L	2.5	EPA 300.0
COD			18	mg/L	10	EPA 410.4
Nitrogen, Ammonia			< 0.1	-	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			0.24	-	0.01	EPA 353.2
Phosphorus, Total			0.052	-	0.05	EPA 365.1
TKN			0.67	-	0.3	SM4500N(Org)-D
TOC				mg/L	5	SM5310C
Lab ID # : AB14014		<u>R</u>	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2	2419.6	MPN/100mL	2419.6	SM9223B
E. coli			1299.7	MPN/100mL	1	SM9223B
Water Flow Type Run	Water A	ppearance N	Murky	,	Water Depth	☐ Algae?
Water Flow (cf/sec):		opearance M Estimated?	_	\uatic Life?	Water Depth Canopy Closed %	_
Water Flow (cf/sec):		Estimated?	_			_
Water Flow (cf/sec): Sampler Comments:		Estimated?	□ Aq	uatic Life?	Canopy Closed %	0-20%
Water Flow (cf/sec): Sampler Comments: Lab ID #:		Estimated?	Aq	watic Life?	Canopy Closed %	0-20%
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat		Estimated?	Aqualit 71	watic Life? % mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C)
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO		Estimated?	Aquaria	watic Life? % mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)		Estimated?	Aquaria	watic Life? % mg/L SU umho/cm	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)		Estimated?	Aq A	watic Life? % mg/L SU umho/cm °C	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature		Estimated?	Aq Result 71 6.04 7.89 846 23.38 13.3	watic Life? % mg/L SU umho/cm °C	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity		Estimated?	71 6.04 7.89 846 23.38 13.3 5	watic Life? % mg/L SU umho/cm °C NTU	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp		Estimated?	71 6.04 7.89 846 23.38 13.3 5	% mg/L SU umho/cm °C NTU Lookup	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions		Estimated?	71 6.04 7.89 846 23.38 13.3 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction		Estimated?	71 6.04 7.89 846 23.38 13.3 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		Estimated?	71 6.04 7.89 846 23.38 13.3 5 1 27 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength Lab ID #: AB12839		Estimated?	71 6.04 7.89 846 23.38 13.3 5 1 27 1	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Canopy Closed % Reporting Limit Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Method

Tuesday, October 22, 2013 Page 198 of 207

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.

Lab ID #:	<u>Result</u>		Reporting Limit	Method
% 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
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	2.0	mg/L	1	SM5310C

Tuesday, October 22, 2013 Page 199 of 207

SiteID: LMG-05-0030	Sample Date:	9/17/2013		IDEM Sampl	e#: AB12878	
Water Flow Type Run	Water /	Appearance	Murky		Water Depth	☐ Algae?
Water Flow (cf/sec):	Flow	Estimated?	☐ Aq	uatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% 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	<u>Method</u>
O-1'((T-(-1)			> 2419 6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)			× = 110.0			
E. coli	Sample Date:	9/24/2013		MPN/100mL	1 e#: AB12917	SM9223B
E. coli SiteID: LMG-05-0030	Sample Date:	9/24/2013 Appearance		MPN/100mL IDEM Sampl		SM9223B ✓ Algae?
E. coli SiteID: LMG-05-0030 Vater Flow Type Run	Water A		1119.9		e#: AB12917	✓ Algae?
E. coli SiteID: LMG-05-0030	Water A	Appearance	1119.9	IDEM Sampl	e #: AB12917 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water A	Appearance	1119.9	IDEM Sampl	e #: AB12917 Water Depth	✓ Algae?
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water A	Appearance	Murky	IDEM Sampl uatic Life?	e #: AB12917 Water Depth Canopy Closed %	✓ Algae? 0-20%
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #:	Water A	Appearance	1119.9 Murky Aq Result 84.7	IDEM Sampl uatic Life?	e #: AB12917 Water Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #:	Water A	Appearance	1119.9 Murky Aq Result 84.7	IDEM Sampl uatic Life? % mg/L	e #: AB12917 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C)
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO	Water A	Appearance	Murky Aq Result 84.7 8.35 7.99	IDEM Sampl uatic Life? % mg/L	e #: AB12917 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field)	Water A	Appearance	Murky Aq Result 84.7 8.35 7.99	Muatic Life? % mg/L SU umho/cm	e #: AB12917 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): ampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water A	Appearance	Murky Aq Result 84.7 8.35 7.99 786	### COMPANDED NATIONAL COMPANDED	e #: AB12917 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water A	Appearance	Murky Result 84.7 8.35 7.99 786 15.96 24.4	### COMPANDED NATIONAL COMPANDED	e #: AB12917 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli SiteID: LMG-05-0030 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity	Water A	Appearance	Murky Aq Result 84.7 8.35 7.99 786 15.96 24.4 3	Muatic Life? % mg/L SU umho/cm °C NTU	e #: AB12917 Water Depth Canopy Closed %	✓ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: **Base	Water A	Appearance	Murky Aq Result 84.7 8.35 7.99 786 15.96 24.4 3 1	"We will be supposed to the su	e #: AB12917 Water Depth Canopy Closed %	■ Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
E. coli SiteID: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions	Water A	Appearance	Murky Result 84.7 8.35 7.99 786 15.96 24.4 3 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12917 Water Depth Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
E. coli SitelD: LMG-05-0030 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water A	Appearance	Murky Result 84.7 8.35 7.99 786 15.96 24.4 3 1 27	"C" NTU Lookup Lookup Lookup	e #: AB12917 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
E. coli SiteID: LMG-05-0030 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water A	Appearance	Murky Result 84.7 8.35 7.99 786 15.96 24.4 3 1 27 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12917 Water Depth Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 200 of 207

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				

Tuesday, October 22, 2013 Page 201 of 207

SiteID:LMG-05-0031USGS Hydrologic Unit:040400010505Stream Name:Turkey CreekCounty: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:** 7/10/2013 **IDEM Sample #:** AB13608

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	59.8	%		ASTM D888-09(C)
DO	5.07 r	mg/L		ASTM D888-09(C)
pH (Field)	7.57	SU		EPA 150.2
Specific Conductance (Field)	643 u	umho/cm		SM2510B
Temperature	23.58	°C		SM2550B(2)
Turbidity (Hach)	18.6	NTU		EPA 180.1
Air Temp	5 l	Lookup		Observation
Flow	51.662	cf/sec		TM D5389-95/D3858
Sky Conditions	2 l	Lookup		Observation
Wind Direction	27 l	Lookup		Observation
Wind Strength	1 l	Lookup		Observation
Lab ID #: A988996	<u>Result</u>		Reporting Limit	Method
Alkalinity (as CaCO3)	170 r	mg/L	10	EPA 310.2
Chloride	64 r	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)	230 r	mg/L	1	SM2340B
Solids, Suspended Total, (TSS)	14 r	mg/L	1	SM2540D
Solids, Total (TS)	380 r	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 r	mg/L	10	SM2540C
Sulfate	46 r	mg/L	1.3	EPA 300.0
COD	33 r	mg/L	10	EPA 410.4
Nitrogen, Ammonia	0.11 r	mg/L	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.58 r	mg/L	0.01	EPA 353.2
Phosphorus, Total	0.1 r	mg/L	0.05	EPA 365.1
TKN	0.5 r	mg/L	0.3	SM4500N(Org)-D
TOC	8.1 r	mg/L	1	SM5310C
Lab ID # : AB13608	<u>Result</u>		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1046.2	MPN/100mL	1	SM9223B

Tuesday, October 22, 2013 Page 202 of 207

SiteID: LMG-05-0031 Sample Date: 7/23/2013 IDEM Sample #: AB11754 ✓ Algae? Water Flow Type Pool Water Appearance Murky Water Depth ✓ Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result Reporting Limit **Method** 56.6 % SM4500-OG % Sat DO 4.63 mg/L SM4500-OG 7.76 SU pH (Field) EPA 150.2 Specific Conductance (Field) 722 umho/cm SM2510B Temperature 24.27 °C SM2550B(2) Turbidity (Hach) 17 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 2 Lookup Observation SiteID: LMG-05-0031 Sample Date: IDEM Sample #: AB14015 8/7/2013 ✓ Algae? **Water Flow Type** Glide Water Appearance Murky **Water Depth** ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 62.2 % ASTM D888-09(C) % Sat DO 5.52 mg/L ASTM D888-09(C) 7.72 SU pH (Field) EPA 150.2 Specific Conductance (Field) 840 umho/cm SM2510B 21.12 °C Temperature SM2550B(2) Turbidity (Hach) 23.4 NTU EPA 180.1 Air Temp 4 Lookup Observation Flow 12.67 cf/sec TM D5389-95/D3858 Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation

Tuesday, October 22, 2013 Page 203 of 207

Lab ID # : A991503		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		190	mg/L	50	EPA 310.2
Chloride		74	mg/L	1.3	EPA 300.0
Hardness (as CaCO3)		340	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)		490	mg/L	10	SM2540C
Sulfate		89	mg/L	1.3	EPA 300.0
COD		23	mg/L	10	EPA 410.4
Nitrogen, Ammonia		< 0.1	-	0.1	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.094	-	0.01	EPA 353.2
Phosphorus, Total		0.064	-	0.05	EPA 365.1
TKN			mg/L	0.3	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
Lab ID # : AB14015		Result		Reporting Limit	Method
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		> 2419.6	MPN/100mL	2419.6	SM9223B
Water Flow Type Pool	Water Appearance	Clear		ater Depth	✓ Algae?
	Water Appearance Flow Estimated?		Wa Juatic Life?	ater Depth Canopy Closed %	-
Water Flow (cf/sec):				•	-
Water Flow (cf/sec): Sampler Comments:		☐ Aq	uatic Life?	Canopy Closed %	0-20%
Water Flow (cf/sec): Sampler Comments: Lab ID #:		Result	uatic Life?	Canopy Closed %	0-20%
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat		Result	yuatic Life? % mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C)
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO		Result 60.7 5.23 7.82	yuatic Life? % mg/L	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C)
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)		Result 60.7 5.23 7.82	% mg/L SU umho/cm	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)		Result 60.7 5.23 7.82 926 22.64	% mg/L SU umho/cm	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature		Result 60.7 5.23 7.82 926 22.64 8.2	% mg/L SU umho/cm °C	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity		Result 60.7 5.23 7.82 926 22.64 8.2 5	% mg/L SU umho/cm °C NTU	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp		Result 60.7 5.23 7.82 926 22.64 8.2 5 1	% mg/L SU umho/cm °C NTU Lookup	Canopy Closed %	0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions		Result 60.7 5.23 7.82 926 22.64 8.2 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup	Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction		Result 60.7 5.23 7.82 926 22.64 8.2 5 1 27	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Canopy Closed %	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength		Result 60.7 5.23 7.82 926 22.64 8.2 5 1 27 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Canopy Closed % Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation
Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength Lab ID #: AB12840		Result 60.7 5.23 7.82 926 22.64 8.2 5 1 27 1 Result	% mg/L SU umho/cm °C NTU Lookup Lookup Lookup	Canopy Closed % Reporting Limit Reporting Limit	Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation Method

Tuesday, October 22, 2013 Page 204 of 207

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:

Lab ID #:	Result		Reporting Limit	Method
% 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
Lab ID # : A994720	Result		Reporting Limit	<u>Method</u>
Lab ID #: A994720 Alkalinity (as CaCO3)		mg/L	Reporting Limit 50	Method EPA 310.2
	320	mg/L mg/L		
Alkalinity (as CaCO3)	320 64	-	50	EPA 310.2
Alkalinity (as CaCO3) Chloride	320 64 390	mg/L	50 2.5	EPA 310.2 EPA 300.0
Alkalinity (as CaCO3) Chloride Hardness (as CaCO3)	320 64 390 2	mg/L mg/L	50 2.5 1	EPA 310.2 EPA 300.0 SM2340B
Alkalinity (as CaCO3) Chloride Hardness (as CaCO3) Solids, Suspended Total, (TSS)	320 64 390 2 560	mg/L mg/L mg/L	50 2.5 1 1	EPA 310.2 EPA 300.0 SM2340B SM2540D
Alkalinity (as CaCO3) Chloride Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Total (TS)	320 64 390 2 560 540	mg/L mg/L mg/L mg/L	50 2.5 1 1	EPA 310.2 EPA 300.0 SM2340B SM2540D SM2540B
Alkalinity (as CaCO3) Chloride Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Total (TS) Solids, Total Dissolved (TDS)	320 64 390 2 560 540 100	mg/L mg/L mg/L mg/L mg/L	50 2.5 1 1 10	EPA 310.2 EPA 300.0 SM2340B SM2540D SM2540B SM2540C
Alkalinity (as CaCO3) Chloride Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Total (TS) Solids, Total Dissolved (TDS) Sulfate	320 64 390 2 560 540 100	mg/L mg/L mg/L mg/L mg/L	50 2.5 1 1 10 10 2.5	EPA 310.2 EPA 300.0 SM2340B SM2540D SM2540B SM2540C EPA 300.0
Alkalinity (as CaCO3) Chloride Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Total (TS) Solids, Total Dissolved (TDS) Sulfate COD	320 64 390 2 560 540 100	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	50 2.5 1 1 10 10 2.5	EPA 310.2 EPA 300.0 SM2340B SM2540D SM2540B SM2540C EPA 300.0 EPA 410.4
Alkalinity (as CaCO3) Chloride Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Total (TS) Solids, Total Dissolved (TDS) Sulfate COD Nitrogen, Ammonia	320 64 390 2 560 540 100 16 < 0.1	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	50 2.5 1 1 10 10 2.5 10 0.1	EPA 310.2 EPA 300.0 SM2340B SM2540D SM2540B SM2540C EPA 300.0 EPA 410.4 SM4500NH3-G
Alkalinity (as CaCO3) Chloride Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Total (TS) Solids, Total Dissolved (TDS) Sulfate COD Nitrogen, Ammonia Nitrogen, Nitrate+Nitrite	320 64 390 2 560 540 100 16 < 0.1 0.046	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	50 2.5 1 1 10 10 2.5 10 0.1	EPA 310.2 EPA 300.0 SM2340B SM2540D SM2540B SM2540C EPA 300.0 EPA 410.4 SM4500NH3-G EPA 353.2

Tuesday, October 22, 2013 Page 205 of 207

SiteID: LMG-05-0031	Sample Date:	9/17/2013		IDEM Sampl	e #: AB12879	
Water Flow Type Run	Water	Appearance	Murky		Water Depth	✓ Algae?
Nater Flow (cf/sec):	☐ Flo	w Estimated?	☐ Aq	uatic Life?	Canopy Close	d % 0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Lin	<u>iit Method</u>
% 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				Lookup		Observation
Sky Conditions				Lookup		Observation
Wind Direction				Lookup		Observation
Wind Strength				Lookup		Observation
Lab ID # : AB12879			Result		Reporting Lin	<u>iit</u> <u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	Sample Date:	9/24/2013	2419.6	MPN/100mL	1 e#· AB12918	SM9223B
SiteID: LMG-05-0031	Sample Date: Water	9/24/2013 Appearance	2419.6 Murky	MPN/100mL IDEM Sample		SM9223B ✓ Algae?
SiteID: LMG-05-0031 Nater Flow Type Run	Water		Murky		e # : AB12918	✓ Algae?
SiteID: LMG-05-0031	Water	Appearance	Murky	IDEM Sampl	e #: AB12918 Water Depth	✓ Algae?
SiteID: LMG-05-0031 Water Flow Type Run Water Flow (cf/sec):	Water	Appearance	Murky	IDEM Sampl	e #: AB12918 Water Depth	✓ Algae? d % 0-20%
SiteID: LMG-05-0031 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water	Appearance	Murky	IDEM Sampluatic Life?	e #: AB12918 Water Depth Canopy Close	✓ Algae? d % 0-20%
SiteID: LMG-05-0031 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Murky Aq Result	IDEM Sampluatic Life?	e #: AB12918 Water Depth Canopy Close	✓ Algae? d % 0-20%
SiteID: LMG-05-0031 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #:	Water	Appearance	Murky Aq Result	IDEM Sampl uatic Life? % mg/L	e #: AB12918 Water Depth Canopy Close	✓ Algae? d % 0-20% Method ASTM D888-09(C)
SiteID: LMG-05-0031 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO	Water	Appearance	Murky Aq Result 63.7 6.42 7.78	IDEM Sampl uatic Life? % mg/L	e #: AB12918 Water Depth Canopy Close	Algae? d % 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: LMG-05-0031 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field)	Water	Appearance	Murky Aq Result 63.7 6.42 7.78	Muatic Life? % mg/L SU umho/cm	e #: AB12918 Water Depth Canopy Close	Algae? d % 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: LMG-05-0031 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field)	Water	Appearance	Murky Result 63.7 6.42 7.78 806	"We mg/L SU umho/cm °C	e #: AB12918 Water Depth Canopy Close	Algae? d % 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: LMG-05-0031 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water	Appearance	Murky Result 63.7 6.42 7.78 806 14.98 19.6	"We mg/L SU umho/cm °C	e #: AB12918 Water Depth Canopy Close	Algae? d % 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: LMG-05-0031 Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Murky Result 63.7 6.42 7.78 806 14.98 19.6 3	"C" NTU	e #: AB12918 Water Depth Canopy Close	Algae? d % 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod
SiteID: LMG-05-0031 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp	Water	Appearance	Murky Result 63.7 6.42 7.78 806 14.98 19.6 3 1	"We will be supposed to the su	e #: AB12918 Water Depth Canopy Close	Algae? d % 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation
SiteID: LMG-05-0031 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat	Water	Appearance	Murky Result 63.7 6.42 7.78 806 14.98 19.6 3 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup	e #: AB12918 Water Depth Canopy Close	Algae? d % 0-20% Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation
SiteID: LMG-05-0031 Nater Flow Type Run Nater Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction Wind Strength	Water	Appearance	Murky Result 63.7 6.42 7.78 806 14.98 19.6 3 1 27	"C" NTU Lookup Lookup Lookup	e #: AB12918 Water Depth Canopy Close	Algae? Algae? Algae? Method ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation
SiteID: LMG-05-0031 Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #: % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity Air Temp Sky Conditions Wind Direction	Water	Appearance	Murky Result 63.7 6.42 7.78 806 14.98 19.6 3 1 27 1 Result	"C" NTU Lookup Lookup Lookup	e #: AB12918 Water Depth Canopy Close Reporting Lin	Algae? Algae? ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) SM2130B Mod Observation Observation Observation Observation

Tuesday, October 22, 2013 Page 206 of 207

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				

Tuesday, October 22, 2013 Page 207 of 207