

Pond 6 Site Assessment Study Report

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Background

The Illinois Department of Natural Resources (IDNR) first contacted Mike Machesky and Jim Slowikowski of the Illinois State Water Survey (ISWS) in January, 2013 about the possible occurrence of fly ash in Pond 6 of the Kickapoo State Recreation Area (KSRA). In general, KSRA consists of 22 deep-water ponds, ranging in size from 0.2 to 57 acres. Formation of the ponds and general landscape began in the mid-1800s through strip-mining activities. The State acquired approximately 1,300 acres of the mined lands from United Electric Coal Company, which today consist of trees and vegetation surrounding the lakes. The source of this fly ash was thought to be from fly ash deposited near a stream that drains into Pond 6 from the upland area to the West. Based on that initial conversation, the ISWS, with the aid of KSRA personnel visited Pond 6 on March 15, 2013. During that trip it was documented that suspected fly ash nodules were indeed present in the delta area where the stream from the western upland area empties into Pond 6. Documentation included both photographs and collection of suspected fly ash samples.

Based on the above finding, a formal contract titled, “Confirmation of the presence of fly ash at Pond 6 Kickapoo State Park” was initiated between the IDNR and the ISWS in May, 2013. The purpose of this contract was to collect and analyze fly ash from the delta area of Pond 6, as well as from along the stream course draining from the upland area containing the fly ash deposit. The field visit to further document the presence of fly ash and collect samples took place on July 5, 2013. During that field visit additional samples were collected from the delta area, as well as from along the stream which was followed upstream to the fly ash deposit itself. A report of the

findings, including numerous photographs, as well as the chemical and microscopic analyses was submitted to the IDNR in November, 2013 and is included as Appendix A to this report.

Although the presence and source of fly ash within Pond 6 was now well-established, there was no information as to the potential impacts of that fly ash on the water, sediments and biota of Pond 6. Hence, in October 2014, ISWS and Illinois Natural History Survey (INHS) personnel submitted a proposal to address this shortcoming. The purpose of the study was to provide a scientific assessment of the current conditions existing within the waters, sediments, and biota of Pond 6. The field sampling campaign for this effort took place between May and September, 2016, and consisted of collecting water, sediments, and biota (fish, snails, and odonates), and analyzing those samples for potentially toxic constituents known to be present in fly ash, and which therefore may also be impairing resident biota. Identical sampling efforts also took place in Long Pond of the KSRA, which was considered a reference or background site.

This report presents the findings of the assessment study. Water and sediment methods and results are presented first, followed by those for the biota, and finally an overall summary of the collective results. In addition, a number of appendices contain the field and analytical data collected.

Part I. Selected Elements in Waters and Sediments of Pond 6, Kickapoo State Recreation Area, Vermilion County, Illinois.

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Sampling methods and analytical protocols

Sampling took place on August 3rd and 4th, 2016 at four general locations within Long Pond, and 5 within Pond 6. All water and two sediment samples from Pond 6 were collected on August 3rd, and the remaining sediment samples were collected on August 4th. Figure 1 indicates the locations sampled within Pond 6, and Figure 2 those sampled in Long Pond. Corresponding GPS coordinates are provided in Appendix B. Long Pond stations were located so as to provide a fairly wide coverage of the entire waterbody, while those for Pond 6 were concentrated in the central pool, since the stream draining from the vicinity of the fly ash deposit normally empties into that section of the Pond. Three locations were sampled in the central pool of Pond 6, and 1 each in the southern and northern pools.

Each sampling site was GPS referenced, and the water column depth determined. Prior to collecting water samples, a hand-held data logger/water quality sonde combination was used to collect temperature, specific conductance, pH, and dissolved oxygen data at several depths beginning at 1 foot below the surface and ending at approximately 1 foot from the bottom. The sonde underwent established pre- and post-calibration procedures before and after use. Water samples were then collected using a horizontal Van Dorn sampler at both 1 foot below the surface, and within 2 feet of the sediment surface at each location. Water samples were directly dispensed into the sample bottles supplied by the contract laboratory, Eurofins Lancaster

Laboratories Environmental, and placed on ice. Several duplicate and field blank water samples were collected and submitted for analysis as well.

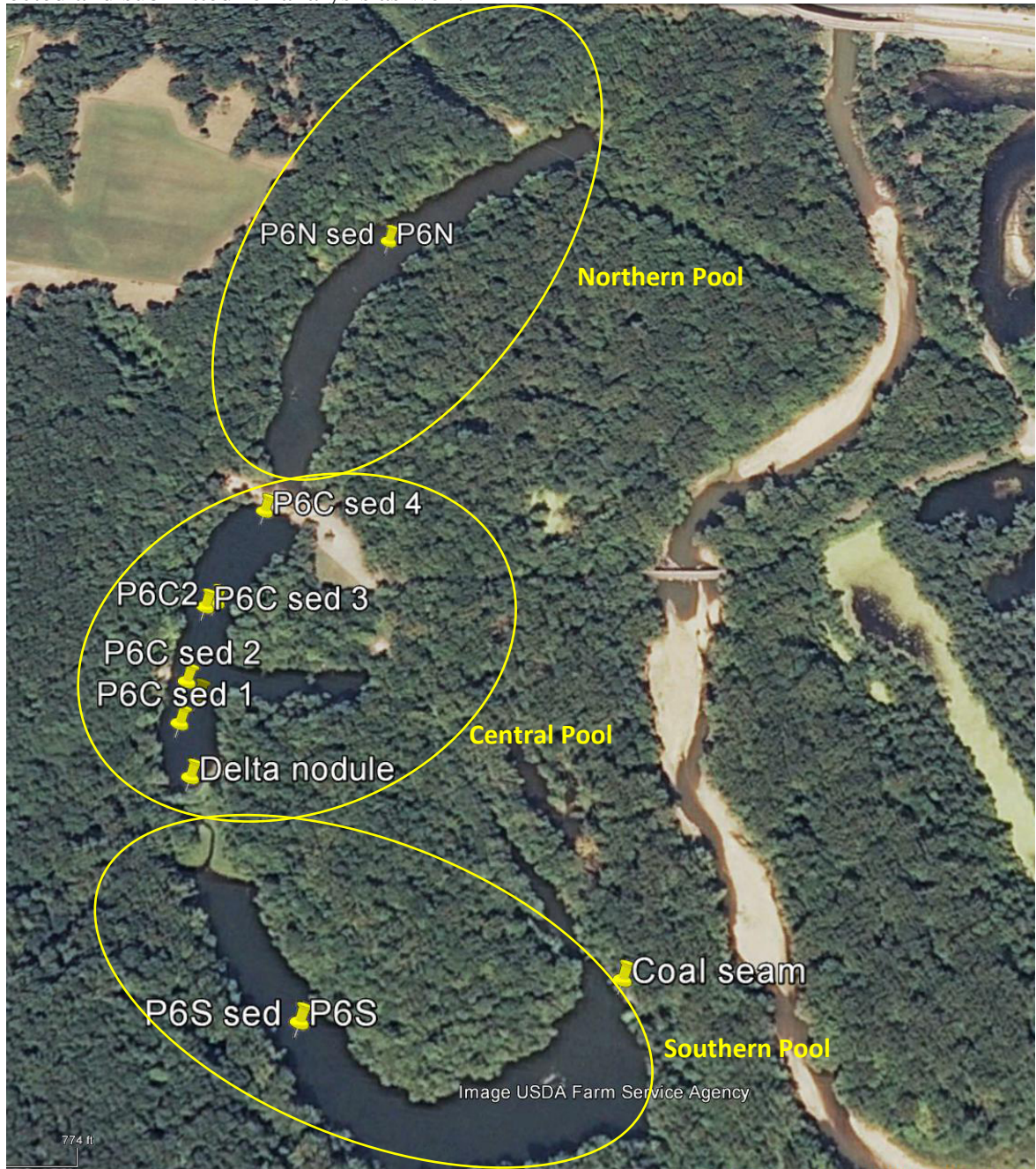


Figure 1. Pond 6 water and sediment sampling locations. GPS coordinates are provided in Appendix B.



Figure 2. Long Pond water and sediment sampling locations. GPS coordinates are provided in Appendix B.

Sediment samples, including several duplicates, were collected using a Ponar Dredge which samples approximately the upper 10 cm of sediment. Sediment samples were placed in the bottles supplied by Eurofins and immediately placed on ice. In addition to the sediment samples, a fly ash sample from the Pond 6 delta, as well as two samples from a coal seam exposed at the Southern end of Pond 6 were also collected and submitted to Eurofins for analysis. Upon return to the ISWS water and sediment samples were packed into ice-filled coolers and shipped overnight to Eurofins.

Upon receipt by Eurofins, a portion of the water samples collected were filtered (0.45 μ filters) to isolate dissolved fractions of constituents. Eurofins Lancaster Laboratories Environmental is certified by the U.S. EPA, and all analytical protocols followed approved U.S. EPA methods, including QA/QC procedures. All water QA/QC results were compliant, with the exception of one dissolved organic carbon sample, for which the recommended holding time was exceeded. All sediment QA/QC results were compliant, with the exception that the recommended holding time for total organic carbon for one sample was exceeded. Also, it was learned that after all analyses had been completed and excess samples disposed of that the sample of fly ash and two coal seam samples were not ground and/or homogenized prior to analysis, despite both written and emailed instructions to please do so. Since those samples were composed primarily of pebble sized chunks, the analytical results may not be representative of properly homogenized samples.

Results and Discussion

Water column temperature, specific conductance, pH, and dissolved oxygen data are provided in Appendix C. Note that these results also include sonde data collected on May 3rd, 2016 during a preliminary site visit. Also included in Appendix C are representative water column profiles for both Pond 6 and Long Pond from August 3rd, 2016. These profiles reveal that the specific conductance of Long Pond, which is a measure of total dissolved content, is considerably greater than that of Pond 6. In addition, in both Pond's pH and dissolved oxygen decrease with increasing depth, with dissolved oxygen concentrations approaching zero. This indicates that the bottommost waters of both Ponds were anoxic at the time of sampling. Dissolved oxygen concentrations were also quite low in the deeper portions of Pond 6 on May 3rd, 2016.

Preliminary analysis of the water chemistry data revealed that there was no distinct difference in results between stations in the Central, Southern, or Northern pools of Pond 6, or between the Long Pond stations, although concentrations of some constituents such as manganese were higher in the samples collected near the bottom of each Pond, particularly in the unfiltered samples. Manganese is more soluble under oxygen-deficient conditions, as was present near the bottom of both Ponds, and the decreased concentrations in the filtered portions of those samples likely reflects the precipitation of solid manganese phases prior to filtration in the Eurofins Laboratories. Consequently, the unfiltered or total concentrations of constituents are considered to be more representative of in-situ conditions, and will be utilized exclusively in comparing Pond 6 and Long Pond water chemistry results.

Total median concentrations of water column constituents in Pond 6 and Long Pond are given in Table 1. For each particular constituent, all values from each Pond were considered together, and concentrations which fell below limits of quantification (LOQ), and above method detection limits (MDL) were considered as well. The statistical method used to compare Pond 6 and Long Pond constituent concentrations was the Mann-Whitney non-parametric U test. This method tests whether the concentrations of a particular constituent in Pond 6 are significantly different from that same constituent in Long Pond at a certain level of significance. For our purposes, a 5% level of significance was chosen meaning a significantly different result for a particular constituent has a 95% probability of being correct. This test could only be strictly applied if all or a majority of all concentrations for a particular constituent in each Pond were above the MDL. In a few instances, most of the concentrations for a particular constituent were above the MDL in Pond 6 but not in Long Pond (Cu, Pb and Se in Table 1). In those instances, the Mann-Whitney non-parametric U test was still applied, but with all concentrations in Long Pond assumed to

equal the MDL. Finally, if all or most of the concentrations for a particular constituent were below the MDL in both Ponds, the Mann-Whitney non-parametric U test was not applied.

The results in Table 1 are color-coded to aid interpretation. Those constituents in black text are those for which most or all concentrations in both Ponds were below MDLs. For those constituents (e.g., Sb, Zn) it not possible to determine whether concentrations are different between Ponds. Blue text signifies that concentrations of those constituents are significantly greater in Long Pond (e.g., B, specific conductance). Red text signifies those constituents for which concentrations are significantly higher in Pond 6 (e.g., Cu, alkalinity). Finally, green text signifies those constituents for which total water column concentrations are not significantly different between Pond 6 and Long Pond (As, Mn).

Table 1. Median water column concentrations and Mann-Whitney non-parametric U test results indicated by color. Black = test could not be applied, blue = Long Pond > Pond 6, red = Pond 6 > Long Pond, green = no difference at the 95% significance level.

Constituent	Pond 6		Long Pond	
	N	Median Conc. (mg/L)	N	Median Conc. (mg/L)
B	9	0.15	9	0.21
Ca	9	67.3	9	90.2
Mg	9	28.2	9	88.4
Sb	9	<0.00048	9	<0.00048
As	9	0.0033	9	0.0019
Ba	9	0.0503	9	0.031
Be	9	<0.00011	9	<0.00011
Cd	9	<0.00019	9	<0.00019
Cr	4	0.00084	9	<0.00059
Co	2	0.00035	9	<0.0002
Cu	7	0.001	9	<0.00052
Pb	9	0.00024	8	<0.00009
Mn	9	0.08970	9	0.0454
Mo	9	0.0070	9	0.00062
Se	7	0.00065	9	<0.00044
Sr	9	0.212	9	0.732
Tl	9	<0.00016	9	<0.00016
V	9	0.0012	9	0.00034
Zn	9	<0.0035	9	<0.0035
Hg	9	<0.00005	9	<0.00005
T.O.C	9	3.4	9	4.3
Alkalinity	9	248	9	157
SpC@ 1ft	4	841.5	4	1223.5

Sediment chemistry results were compared similarly and those results are given in Table 2. All results from each Pond were considered together for this analysis. In this instance there were 7 constituents with significantly higher concentrations in Pond 6 (in red text), 2 with significantly higher concentrations in Long Pond (in blue text), 12 constituents for which concentrations were not significantly different between Ponds (in green text), and 1 constituent (PAH compounds) for which most concentrations (159 out of 166 in Pond 6, and 62 out of 66 in Long Pond) were below MDLs (black text).

Although Tables 1 and 2 provide a concise and informative way to compare water column and sediment concentrations between Pond 6 and Long Pond, the entire suite of analytical results as obtained from Eurofins Lancaster Laboratories Environmental are included in Appendix D to this report. This includes duplicate sample results for both water and sediments, and field and laboratory blank sample results for water. The water blank results were below MDLs for all constituents, except for very low levels of calcium (~0.05 mg/L) in two of the blanks. This supports the contention that water samples were collected and processed carefully, and that values reported to be above MDLs but below LOQs, can be utilized in assessing water column concentration differences between Pond 6 and Long Pond.

No measured water column concentrations exceed Illinois water quality standards or appear otherwise to be highly elevated. However, some constituents known to be enriched in fly ash, are indeed present in Pond 6 waters at significantly higher concentrations than in Long Pond. These constituents include Ba, Cu, Pb, Mo, Se, and V. Three of these constituents, Ba, Pb, and V are also significantly higher in Pond 6 sediments, as are Sb, Be, Cd, and Zn.

Table 2. Median sediment concentrations and Mann-Whitney non-parametric U test results indicated by color. Black = test could not be applied, blue = Long Pond > Pond 6, red = Pond 6 > Long Pond, green = no difference at the 95% significance level.

Constituent	Pond 6		Long Pond	
	N	Median Conc. (mg/kg)	N	Median Conc. (mg/kg)
B	11	16	6	20.2
Sb	9	0.223	6	<0.1
As	11	7.54	6	9.14
Ba	11	103	6	69.75
Be	11	0.897	6	0.792
Cd	11	0.265	5	0.175
Ca	11	19600	6	34750
Cr	11	21.5	6	22.4
Co	11	10.7	6	10.335
Cu	11	17.8	6	17.65
Pb	11	19.6	6	16.7
Mg	11	9150	6	9460
Mn	11	727	6	1091
Mo	11	0.952	6	1.195
Se	11	0.595	6	0.54
Sr	11	30	6	104.1
Tl	10	0.26	6	0.24
V	11	35.3	6	29.45
Zn	11	97.1	6	73.65
Hg	10	0.04	1	0.04
T.O.C	11	20400	6	23350
PAHs	159/166	<0.003	62/66	<0.003
PAHs	7/156	0.033	4/66	0.03

Table 3 presents additional support for the presence of fly ash in Pond 6. From left to right, element concentrations are given for the coal seam samples collected from the southern end of Pond 6, the fly ash nodules collected during the 2013 study (Appendix A), median fly ash and soil concentrations from an Electric Power Research Institute report (EPRI, 2010), average concentrations in Long Pond sediments, and finally an enrichment factor as defined by the ratio of fly ash nodule to Long Pond sediment concentrations. The fly ash nodule concentrations from the 2013 study were used because the concentrations from the nodule collected during this study may not be representative since that nodule sample was not properly homogenized by Eurofins before analysis. This shortcoming may also affect the coal seam concentrations, but at least in that instance the values given represent the average of 2 separate samples.

Table 3. Coal seam, fly ash nodule, and Long Pond sediment concentrations, and enrichment factors.

	coal seam	2013 Fly ash nodule	Fly ash	Soil	LP sediment	Enrichment Factor
Element	Avg conc.	Avg conc.	median conc. ¹	median conc. ¹	Avg conc.	nodule/LP sediment
Sb	0.12	11.2	<7.2	<1	<0.1	>110
As	1.685	10.5	71	6	9.00	1.2
Ba	4.94	523.5	923	500	67.60	7.7
Be	0.953	9.7	10.6	<1	0.75	12.9
Cd	<0.0388	1.8	1.1	0.2	0.20	9.0
Cr	5.345	85	133	50	20.80	4.1
Co	0.335	27.6	8	7	10.40	2.7
Cu	2.72	47.2	140	20	16.60	2.8
Pb	2.97	103	49	15	16.30	6.3
Mo	2.355	13	19	<3	1.39	9.4
Se	0.88	4.3	11	0.3	0.53	8.1
Tl	0.725	17.4	2.4	0.5	0.23	75.7
V	7.775	347	254	52	28.60	12.1
Zn	2.835	531	152	72	74.60	7.1
Hg	0.035	0.09	0.1	0.05	0.04	2.3

For all of the elements reported, fly ash nodule concentrations are 2.5 to more than 200 times greater than those for the coal seam samples. Although the source of the coal for the fly ash nodules collected in 2013 is unknown, the higher fly ash concentrations, including the median concentrations reported in the EPRI report are indicative of coal combustion resulting in a residual ash enriched in many elements. Fly ash concentrations are also greater than corresponding median soil concentrations, and from 2.3 to >110 times greater than corresponding sediment concentrations in Long Pond, our background site. In total, of the 15 elements in Table 3, 10 were found in significantly higher concentrations in Pond 6, in either the water, sediments or both, and none were higher in Long Pond (as shown in Table 1 and Table 4). Table 4 amends the sediment chemistry results to include median sediment concentrations in sediments collected within the state of Illinois as contained in a U.S. Geological Survey on-line database (<https://mrdata.usgs.gov/geochem/>), and so-called consensus based threshold effects concentrations (TEC) and probable effects concentrations (PEC). Consensus based TEC and PEC values represent concentrations above which threshold (TEC) and probable (PEC) toxicity effects have been observed in laboratory tests with aquatic organisms in a wide variety of studies (McDonald et al., 2000).

For those constituents where comparison is possible median sediment concentrations in Pond 6 are at most only 2 times greater than median concentrations in sediments from other localities in Illinois (Ba, Cu, Zn, Se, Hg), and for some other constituents they are actually less (As, Cd, Pb). It should also be noted that median concentrations of several elements in Long Pond sediments (As, Ba, Cu, Se, Zn, Hg), are also greater than median concentrations for other sediments in Illinois. In addition, all TEC and PEC values exceed median Pond 6 concentrations for those constituents where comparison is possible. Although this comparison is limited to certain

constituents, it does suggest that the concentrations of those constituents in Pond 6 sediments are not highly elevated.

Table 4. Median Pond 6, Long Pond, Illinois sediments, and TEC and PEC concentrations, and Mann-Whitney non-parametric U test results indicated by color. Black = test could not be applied, blue = Long Pond > Pond 6, red = Pond 6 > Long Pond, green = no difference at the 95% significance level.

Constituent	Pond 6		Long Pond		IL sediments median conc.	TEC	PEC
	N	Median Conc. (mg/kg)	N	Median Conc. (mg/kg)			
B	11	16	6	20.2			
Sb	9	0.223	6	<0.1			
As	11	7.54	6	9.14	7.96	9.8	33
Ba	11	103	6	69.75	62.6		
Be	11	0.897	6	0.792			
Cd	11	0.265	5	0.175	0.39	1	5
Ca	11	19600	6	34750			
Cr	11	21.5	6	22.4		43.4	111
Co	11	10.7	6	10.335			
Cu	11	17.8	6	17.65	12.14	31.6	149
Pb	11	19.6	6	16.7	21.03	35.8	128
Mg	11	9150	6	9460			
Mn	11	727	6	1091			
Mo	11	0.952	6	1.195			
Se	11	0.595	6	0.54	0.31		
Sr	11	30	6	104.1			
Tl	10	0.26	6	0.24			
V	11	35.3	6	29.45			
Zn	11	97.1	6	73.65	51.68	121	459
Hg	10	0.04	1	0.04	0.02	0.18	1.06
T.O.C	11	20400	6	23350			
PAHs	159/166	<0.003	62/66	<0.003			
PAHs	7/156	0.033	4/66	0.03			

It had been well established that fly ash from the Bunge disposal site was present in Pond 6 prior to this study as documented in (Machesky and Slowikowski 2013 (Appendix A)).

Part II. Selected Elements in Biota from Pond 6, Kickapoo State Recreation Area, Vermilion County, Illinois

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Sampling methods and analytical protocols

Snails were collected on 2 June and 6 July 2017, and odonate larvae were collected on 25 July 2017. Sampling locations included 3 pools of Pond 6 and 3 sectors of Long Pond (Fig. 1). Snails and odonate larvae were picked from detritus scooped with a net, or directly removed from substrate, e.g., logs. Specimens were handled with gloved hands and/or forceps. Equipment was rinsed with deionized water between locations. Within each lake, specimens were grouped according to the portion of the lake from which they were collected: for Pond 6, South, Middle, and North pools; for Long Pond, North, Middle and South sections (map). In the field, a sample consisted of approximately 30 to 40 snails or a similar number of odonates placed in a labeled Whirl-Pak® with a small amount of water from that site and placed on wet ice until transferred to a refrigerator in the lab. Numbers of organisms collected were based on estimates of wet mass.

Sample sizes (submitted for analysis) by lake and lake sector/pool were as follows:

Snails (n):

Pond 6- North (4); Middle, delta (5), boat ramp (2); South (0).

Long Pond- Middle (5); South (1).

Odonates (n):

Pond 6- Middle (4); South (3).

Long Pond- North (1); Middle (6); South (1).

In the laboratory, snail soft bodies were removed from shell. Excess water was blotted from snails and odonates using an unbleached paper towel before being weighed (g) and repackaged

before freezing until shipped to the laboratory for analysis. To provide sufficient sample mass for analytical detection limits, ~1 g of wet mass was used as a “sample” for both



Fig. 3. Biota sampling locations at Pond 6 (top) and Long Pond (bottom), Kickapoo State Recreation Area, Vermilion County, Illinois.

snails and odonates. Actual sample mass was documented, and in only two cases (one sample from Pond 6 south and one from Long Pond south) were sample weights substantially lower than 1 g..

Fish were collected 14-15 June and 14 July 2017 using boat-mounted DC current electrofishing gear. Fishing was conducted along lake edges, shallow water areas, and around submerged cover. Live fish were maintained in a cooler with lake water until euthanasia with an overdose of buffered MS-222 (tricaine methanesulfonate) at 250 mg/L. Following cessation of opercular movement fish were bagged and placed on wet ice for transport to laboratory facilities. Sampling targets included 5 fish of each taxa (largemouth bass, sunfish, benthivores) from each pool/sector of each lake. Number of fish collected by taxon, lake and section were as follows:

Largemouth bass (LMB):

Pond 6- North (5); Middle (5); South (5).

Long Pond- North (5); Middle (5); South (5).

Sunfish (SUN):

Pond 6- North (5); Middle (5); South (5).

Long Pond- North (5); Middle (5); South (5).

All of the SUN collected from Pond 6 were bluegill. At Long Pond, redear sunfish were substituted for bluegill as necessary: redear/sunfish North (5/5); Middle 3/5; South (0/5). These two sunfish species have a large degree of dietary overlap, although the redear incorporates a greater proportion of snails into its diet where abundant.

Benthivores (BEN):

Pond 6- North (5); Middle (5); South (5).

Long Pond- North (0); Middle (3); South (3).

Suckers (Catostomidae) were included in BEN samples where available. Suckers were abundant in Pond 6 and that sample consisted of the following: spotted sucker (9); white sucker

(2); river carpsucker (2); quillback (1); and golden redhorse (1). Tissues collected were as follows: fillets and livers were collected from 15 LMB and 15 SUN from each lake; fillets were collected from 15 BEN from P6 and 6 from LP; livers were collected from 15 BEN from P6 and 4 from LP (livers of 2 benthivores were not submitted for analysis due to their deteriorated state).

Fish were weighed (g) and measured (mm) before removal of one fillet and the liver; both tissue samples were weighed (g) in clean weighing boats before placing into Whirl-Pak®s and frozen until shipped to a laboratory for chemical analysis. The work area, gloves and instruments were rinsed with deionized water between specimens within a sample. Work area and instruments were cleaned with Alconox, followed by tap and deionized water rinses and gloves changed between samples and lakes. Frozen specimens were shipped overnight to Eurofins Frontier Global Sciences, Inc., Bothell, WA, for preparation and analysis. Trace metals preparation followed EFGS-058 Teflon Concentrated Nitric Tissue Digestion and analysis were performed by inductively coupled plasma mass spectrometry in accordance with EFGS-054, a modified EPA 1638. Total mercury preparation followed EFGS-011 Nitric/Sulfuric Hg Digestion and analysis was performed by flow injection atomic fluorescence spectrometry in accordance with EPA 1631B. Elements are expressed on a wet weight basis.

Quality Control samples included method blanks, Laboratory Control Samples (LCS) and duplicates (LCSD), Matrix (or Analytical) Spikes (MS) and duplicates (MSD). Overall, the Quality Control results were excellent. The few minor issues were as follows: in snails, Tl was outside of control limits (80-120%) in two analytical spike duplicates in one batch. However, the MS/MSD and LCS/LCSD recoveries were within control limits, so the data are acceptable. In odonates, the MS recovery for Zn was outside of control limits (65-135%) in two spikes in one batch, however, the LCS/LCSD was in control limits and therefore the data are acceptable. In

one of these samples, RPD for the MS/MSD was outside of control limits (20%), however, the other QC samples were within limits, therefore the data are acceptable. In fish livers, V, Cr and Co recovered high (135-149%) in one or more LCS, LCSD, MS and MSD in one batch, but the relative percent difference between the spike and spike duplicates was good, so the data are acceptable. Also, Zn recovered low (24 and 36%) in two MSD, but was fine (within 65-135%) in the MS and second sets of duplicates, so the data are acceptable. (APPEND)

Statistics

Values less than DL were entered as ½ the DL, when >60 of values were > the DL. Otherwise treatment statistics were based only on those samples with concentrations > DL. Means were not compared statistically when one treatment had fewer than 60% of values that were <DL. We examined normality subjectively via visual examination of histograms and objectively via the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality. When distributions were found to be non-normal, data were transformed (ln) and reassessed. The means of normal and log-transformed data were compared using ANOVA in SPSS; when transformation failed to improve distributions, the original data were compared via non-parametric tests. Differences in detection rates between lakes were noted in summary matrix when lower rate was <50% of the higher rate.

Results

Antimony

Snails

Antimony was not detected (DL= 0.005 mg/kg) in any snail samples.

Odonates

Antimony was not detected (DL= 0.005 mg/kg) in any dragonfly larvae.

Fish

Antimony was detected (DL= 0.006 mg/kg) in only one sample, the liver of a Spotted Sucker collected at Pond 6 (0.032 mg/kg).

Arsenic

Snails

As was detectable (DL= 0.04 mg/kg) in all snail samples. Mean and maximum As concentrations were greater in snails from Long Lake (Table 5). Mean log-transformed As concentrations were significantly greater in snails collected at Long Lake ($F_{1,15} = 11.6$, $P < 0.01$).

Table 5. Arsenic mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	2.16	6	0.84	1.01	3.60
Pond6	1.32	11	0.13	1.10	1.63

The mean As concentration in snails from the middle (1.38 mg/kg) and north (1.29 mg/kg) pools of pond 6 were similar.

Odonates

Arsenic was detected (DL= 0.04 mg/kg) in all but one odonate sample, that collected from the middle portion of Long Lake. The minimum and maximum As concentrations were greater in larvae from Pond 6 (Table 6). However, the difference in mean As concentration between lakes was not significant ($F_{1,13} = 1.1$, $P = 0.31$). The mean As concentration was 78% greater in odonates from the middle pool (0.63 mg/kg) of Pond 6 than those from the south pool (0.34 mg/kg) of that lake.

Table 6. Arsenic mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.37	8	0.19	.02	.61
Pond6	0.50	7	0.26	.28	1.05

Fish

Arsenic was detected (DL= 0.05 mg/kg) in 17 of 45 (38%) fish from Pond 6, and 28/34 (82%) of fish from Long Pond. Arsenic was detected in 3 of 15 (20%) LMB from Pond 6 (each from the south pool), compared to all but one from Long Pond. The minimum and maximum liver As concentrations were greater in fish from Long Pond than in those from Pond 6 (Table 7).

Table 7. Arsenic mg/kg in LM Bass livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.45	14	0.25	0.20	0.98
Pond6	0.27	3	0.17	0.15	0.46

Arsenic was detected in 12/15 (80%) of SUN from Long Pond and 10/15 (67%) of those from Pond 6 (Table 8). The maximum concentration was 2.6-fold greater in fish from Long Pond, however, the mean liver As concentration did not differ significantly between Ponds ($F_{1,20} = 4.0$, $P = 0.06$).

Table 8. Arsenic mg/kg in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.56	12	0.34	0.24	1.35
Pond6	0.34	10	0.10	0.21	0.52

Arsenic was detected in 2/4 (50%) of BEN from Long Pond and 4/15 (27%) from those from Pond 6. The minimum and maximum As concentrations were notably greater in fish from Long Pond than in those from Pond 6 (Table 9).

Table 9. Arsenic mg/kg in benthivore livers

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.36	2	0.13	0.27	0.45
Pond6	0.17	4	0.06	0.12	0.22

Beryllium

Snails

Beryllium was not detected ($DL = 0.03$ mg/kg) in any snail samples.

Odonates

Beryllium was not detected ($DL = 0.031$ mg/kg) in any odonate larvae.

Fish

Beryllium was not detected ($DL = 0.032$ mg/kg) in any of the livers of fish we collected.

Boron

Snails

Boron was not detected (DL= 0.11 mg/kg) in any snail samples.

Odonates

Boron was not detected (DL= 0.11 mg/kg) in any odonate larvae.

Fish

Boron was not detected (DL= 0.12 mg/kg) in any of the livers of fish we collected.

Cadmium

Snails

Cadmium was detected (DL= 0.001 mg/kg) in all snail samples. Mean ($F_{1, 15} = 7.1$, $P = 0.02$) and maximum Cd concentrations were greater in snails from Long Pond (Table 10).

Table 10. Cadmium mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.14	6	0.07	0.01	0.21
Pond6	0.09	11	0.02	0.05	0.13

The mean Cd concentration in snails from the middle pool of Pond 6, where nodules were found (0.095 mg/kg) was 40% greater than that in samples from the north pool of that pond (0.068 mg/kg).

Odonates

Cadmium was detected (DL= 0.001 mg/kg) in 13/15 (87%) odonate larvae samples. The exceptions were samples from the middle and south portions of Long Lake. The mean Cd concentrations were similar between lakes (Table 11; $F_{1, 13} = 3.1$, $P = 0.10$).

Table 11. Cadmium mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.01	8	0.01	0.00	0.03
Pond6	0.02	7	0.01	0.01	0.04

The mean Cd concentration in odonate larvae from the middle pool of Pond 6 (0.03 mg/kg) was 3-fold greater than that in samples from the south pool of that pond (0.01 mg/kg).

Fish

Cadmium was detected (DL= 0.001 mg/kg) in all but one fish liver, that of a spotted sucker from Long Pond. With a few exceptions, LMB from Pond 6 had greater concentrations of Cd in their liver throughout the size range collected (Fig. 4). The mean ($U_{15, 15} = 39.0$, $P < 0.01$), minimum and maximum concentrations of Cd were greater in the livers of LMB from Pond 6 than in those from Long Pond (Table 12).

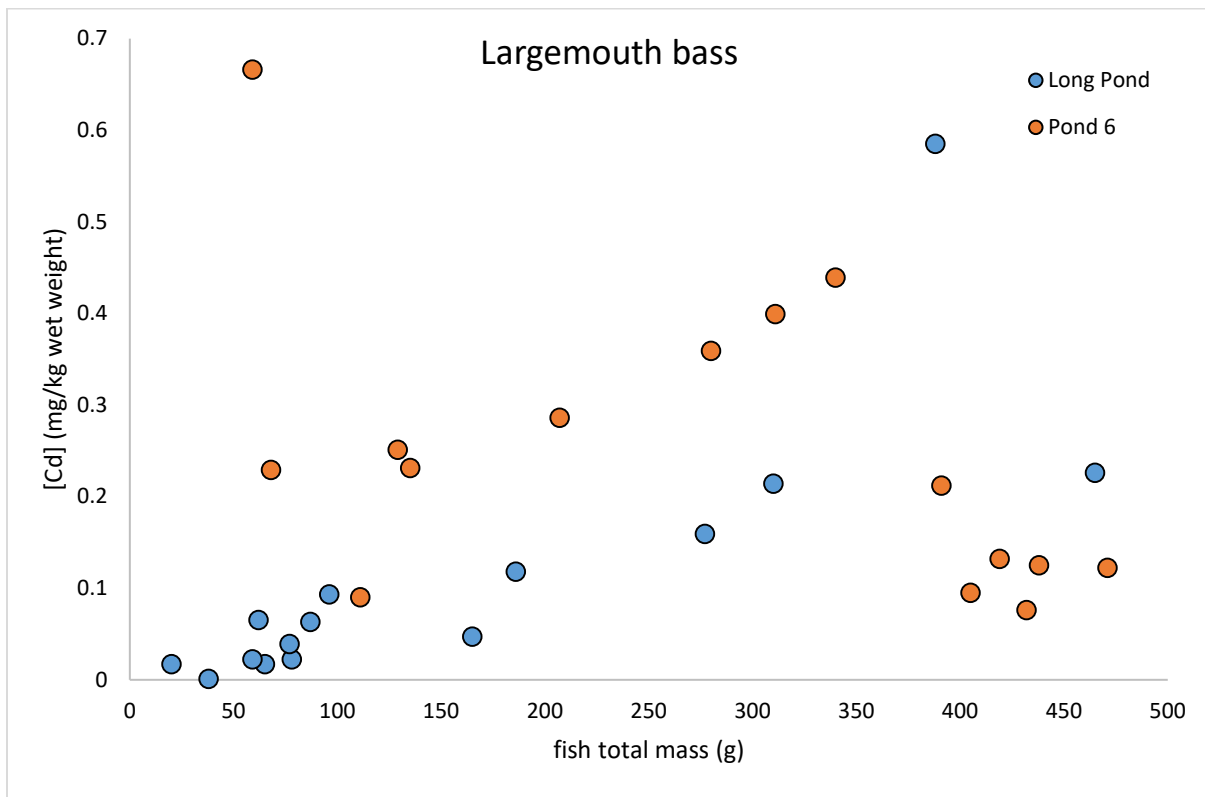


Fig. 4. Cadmium concentrations in livers of largemouth bass from Pond 6 and Long Pond.

Table 12. Cadmium mg/kg in largemouth bass livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.11	15	0.15	0.00	0.59
Pond6	0.25	15	0.16	0.08	0.67

The mean Cd concentration in LMB from the middle pool of pond 6, which is the pool directly receiving the inflow of the stream forming the delta, was intermediate in relation to those from the north and south pools (Fig. 5).

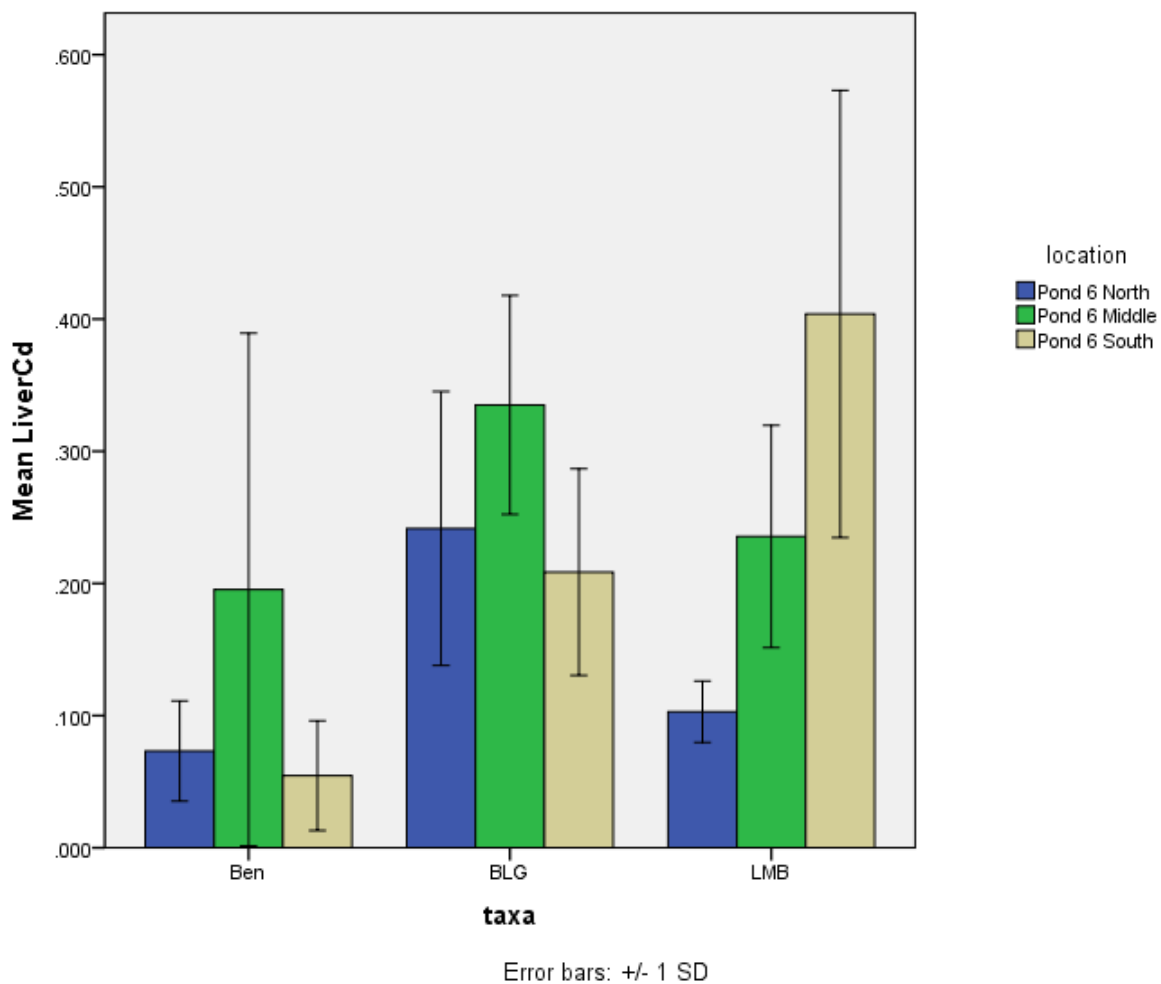


Fig. 5. Liver cadmium concentrations in fish from Pond 6 by taxa and pool.

Cadmium concentrations were greater in livers of SUN from Pond 6 than in those from Long Pond throughout the range of sizes collected (Fig. 6). Mean ($F_{1, 20} = 21.2, P < 0.01$) and maximum Cd concentrations were also greater in SUN from Pond 6 (Table 13). The mean Cd concentration was greatest in SUN from the middle pool of Pond 6, which is the pool directly receiving the inflow of the stream forming the delta (Fig.5).

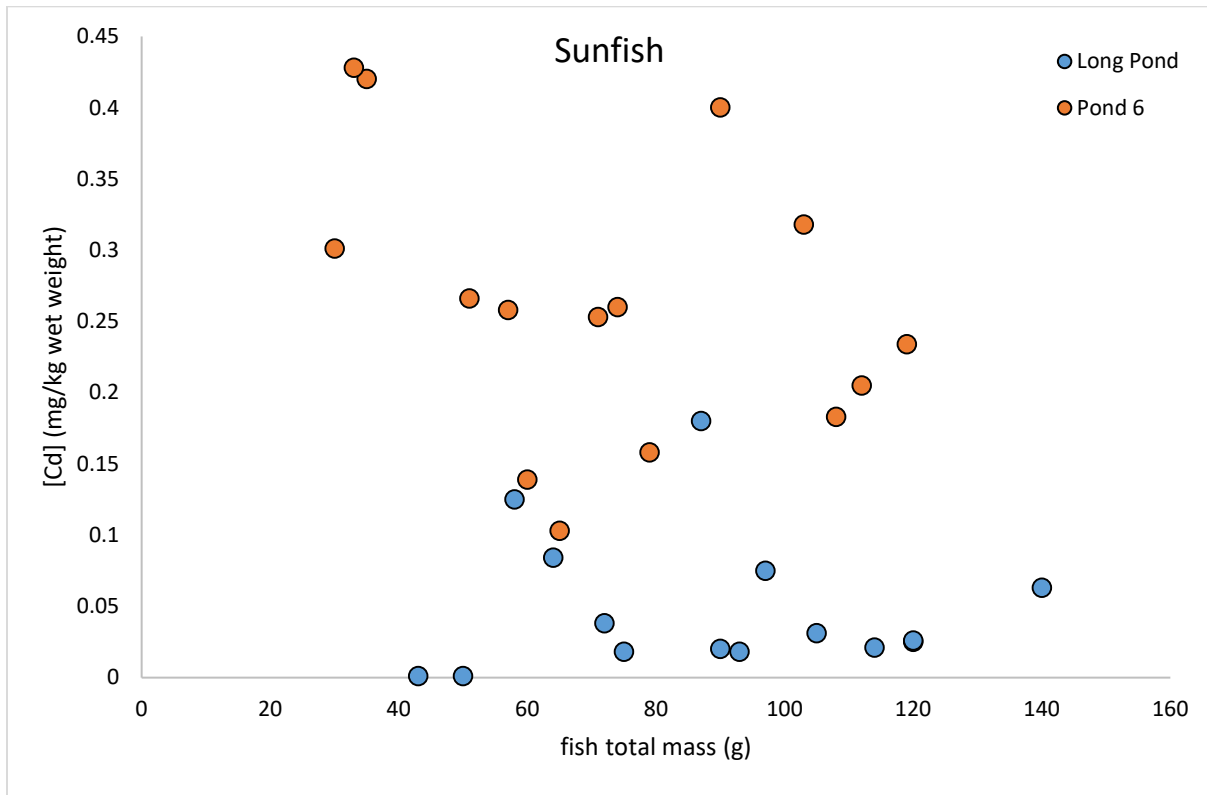


Figure 6. Cadmium concentrations in livers of sunfish from Pond 6 and Long Pond.

Table 13. Cadmium mg/kg in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.05	15	0.05	0.00	0.18
Pond6	0.26	15	0.10	0.10	0.43

Cadmium was detected in all of the BEN collected from Pond 6, and in 3/4 (75%) of those from Long Pond. The maximum observed concentration was notably greater in fish from Long Pond (Table 14).

Table 14. Cadmium mg/kg in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.86	3	1.01	0.03	1.98
Pond6	0.11	15	0.13	0.03	0.53

The mean Cd concentration was greater in BEN from the middle pool of pond 6, which is the pool containing the inflow of the stream forming the delta (Fig. 5).

Chromium

Snails

Chromium was detected (DL = 0.03 mg/kg) in all snail samples. Chromium concentrations in snails were very similar between lakes (Table 15).

Table 15. Chromium mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.54	6	0.27	0.22	0.97
Pond6	0.52	11	0.25	0.21	0.95

Odonates

Chromium was detected (DL= 0.03 mg/kg) in 6/15 (40%) larvae samples. These included 1/8 (13%) samples from Long Lake and 5/7 (71%) from Pond 6. The concentration in the sample from Long Lake was similar to maximum concentration observed in larvae from Pond 6 (Table 16).

Table 16. Chromium mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.22	1	.		0.22

Pond6	0.18	5	0.05	0.13	0.24
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Fish

Chromium was detected (DL= 0.03 mg/kg) in only one sample, that of the liver of a bluegill collected at Pond 6 (8.87 mg/kg)

Cobalt

Snails

Cobalt was detected (DL= 0.003 mg/kg) in all snail samples. The maximum Co concentration was notably greater in snails from Long Pond; the mean Co concentration was notably greater in samples from Long Pond (Table 17), however this difference was not significant ($F_{1,15} = 1.2$, $P = 0.29$).

Table 17. Cobalt mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.52	6	0.31	0.08	1.01
Pond6	0.39	11	0.18	0.18	0.69

Odonates

Cobalt was detected (0.003 mg/kg) in all odonate larvae samples. The log-transformed mean ($F_{1,13} = 9.3$, $P = 0.01$) as well as minimum and maximum Co concentrations were greater in larvae from Pond 6 (Table 18).

Table 18. Cobalt mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.09	8	0.05	0.06	0.21
Pond6	0.16	7	0.07	0.11	0.31

Fish

Cobalt was detected (DL= 0.003) in 34/36 fish from Long Pond (94%) and 38/45 (84%) from Pond 6. Cobalt concentrations were greater in LMB from Long Pond than in those from Pond 6

across size classes (Fig. 7). Mean log-transformed ($F_{1,28} = 31.3$, $P < 0.01$) and maximum Co concentrations were greater in livers of bass from Long Pond, when compared to those from Pond 6 (Table 19).

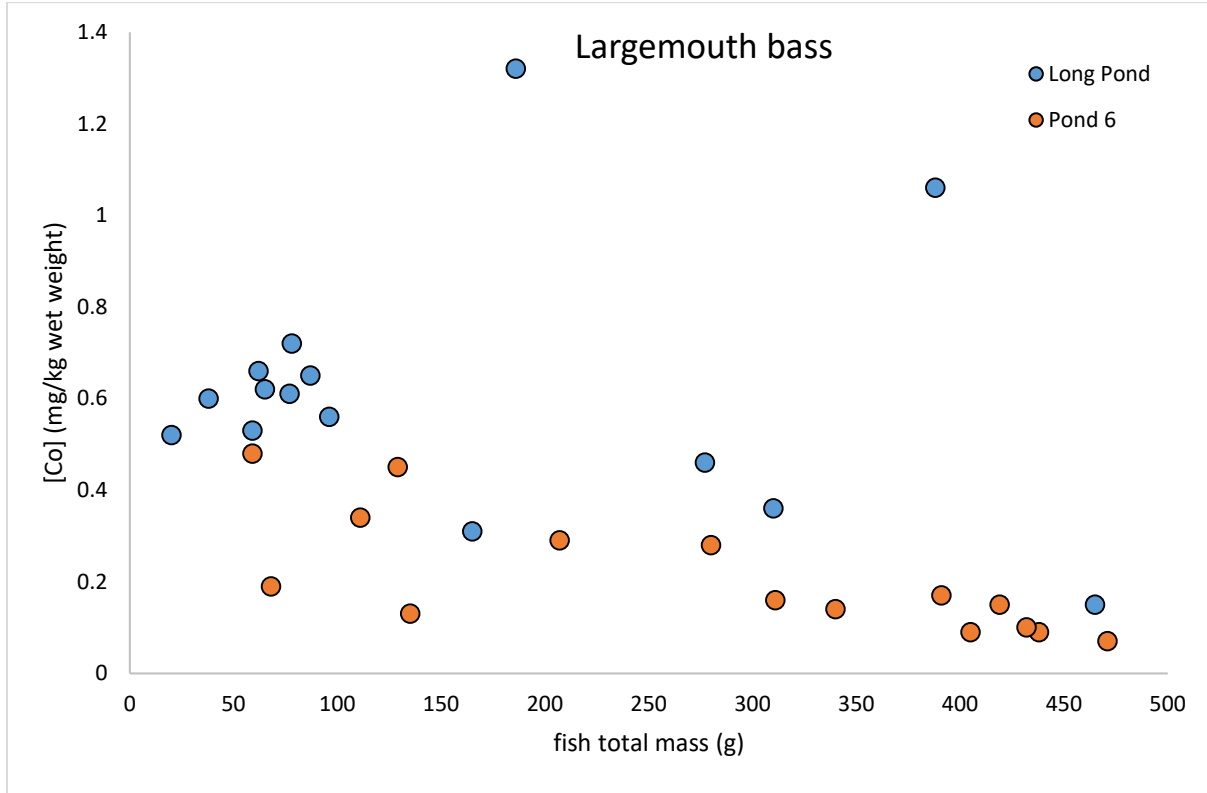


Fig. 7. Cobalt concentrations in livers of largemouth bass from Pond 6 and Long Pond.

Table 19. Cobalt mg/kg in LM Bass livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.61	15	0.28	0.15	1.32
Pond6	0.21	15	0.13	0.07	0.48

The mean concentrations of Co in the liver of SUN did not differ significantly between ponds (Table 20; $U_{15,15} = 88.5$, $P = 0.33$).

Table 20. Cobalt mg/kg in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
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LongPd	0.31	15	0.22	0.00	0.77
Pond6	0.42	15	0.32	0.00	0.96

Cobalt was detected in the livers of 3/4 (75%) BEN from Long Pond and 8/18 (53%) of those from Pond 6. The minimum and maximum concentrations were greater in fish from Long Pond, when compared to those from Pond 6 (Table 21).

Table 21. Cobalt mg/kg in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.56	3	0.41	0.12	0.92
Pond6	0.07	8	0.02	0.03	0.09

Lead

Snails

Lead was detected (DL= 0.002 mg/kg) in all snail samples. Mean log-transformed Pb concentrations were greater ($F_{1,15} = 9.4$, $P < 0.01$) in snails from Long Lake (Table 22).

Table 22. Lead mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	1.31	6	0.71	0.54	2.55
Pond6	0.59	11	0.28	0.23	1.01

The mean Pb concentration in snails from the middle pool of Pond 6 (0.73 mg/kg) was 2.1-fold greater than that in samples from the north pool of that pond (0.34 mg/kg).

Odonates

Lead was detected (DL= 0.002 mg/kg) in all odonate larvae samples. The mean ($U_{7,8} = 11.0$, $P = 0.05$), minimum and maximum Pb concentrations were greater in larvae from Pond 6 (Table 23). ($U_{7,8} = 11.0$, $P = 0.05$).

Table 23. Lead mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
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LongPd	0.12	8	0.06	0.08	0.23
Pond6	0.18	7	0.06	0.09	0.30

The mean Pb concentration in odonate larvae from the middle pool of Pond 6 (0.18 mg/kg) was identical to that in samples from the south pool of that pond.

Fish

Lead was detected (DL= 0.002) in 27/34 (79%) of fish collected from Long Pond and 26/45 (58%) of those from Pond 6. Lead was detected in 1/15 (7%) livers of LMB from Long Pond (0.043 mg/kg) and 2/15 (13%) of those from Pond 6 (0.019, 0.031 mg/kg). Lead was not detected in SUN from Long Pond, though was detected in 4/15 (27%) of sunfish from Pond 6, including two specimens from the north pool (0.012, 0.015 mg/kg) and two from the south pool (0.0145, 0.03 mg/kg).

Lead was detected in the livers of four BEN from Long Pond and 12/15 (80%) of those from Pond 6. Lead appeared to accumulate with age and concentrations were greater in larger fish from Pond 6 than in those from Long Pond (Fig. 8). Lead concentrations were very similar between ponds (Table 24). The mean Pb concentration was greatest in BEN from the middle pool of Pond 6 (Fig. 9).

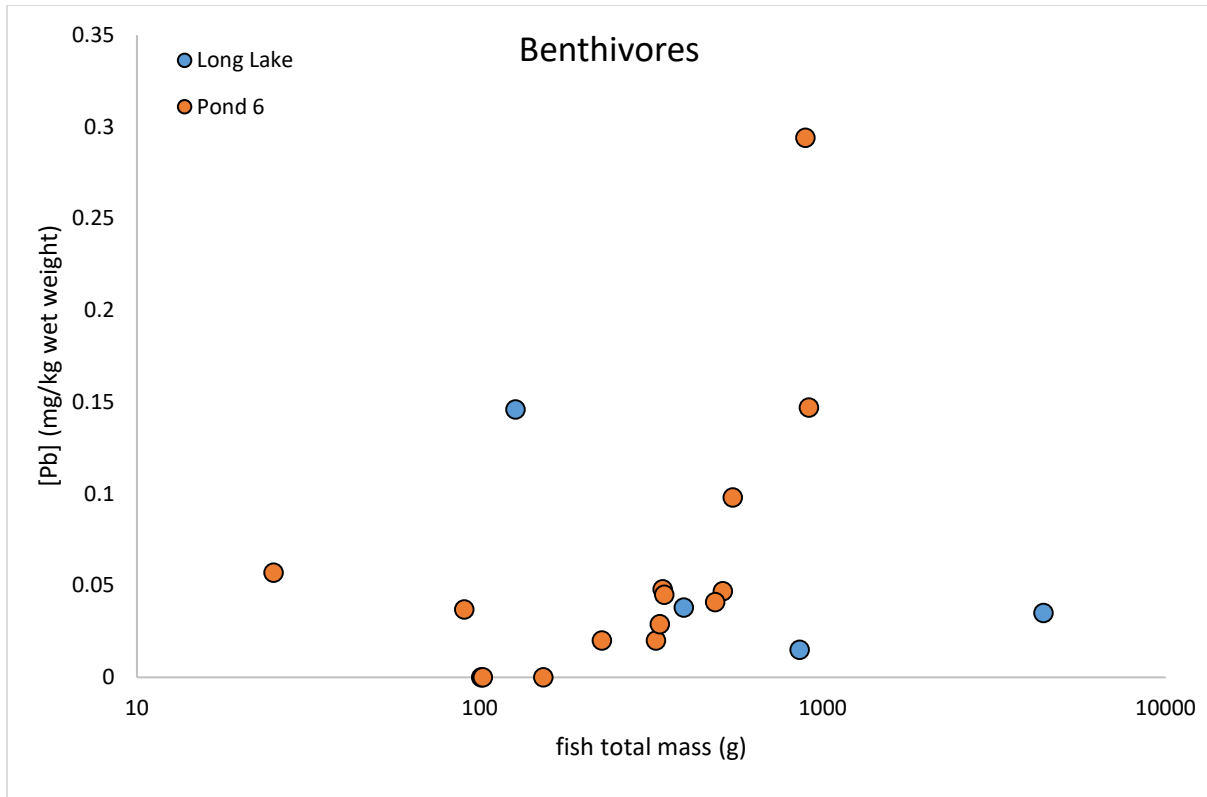


Fig. 8. Lead concentrations in the livers of benthivores from Pond 6 and Long Pond. The x-axis is presented on a logarithmic scale to accommodate the large size of the common carp from Long Pond.

Table 24. Lead mg/kg in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.06	4	0.06	0.02	0.15
Pond6	0.06	15	0.08	0.02	0.29

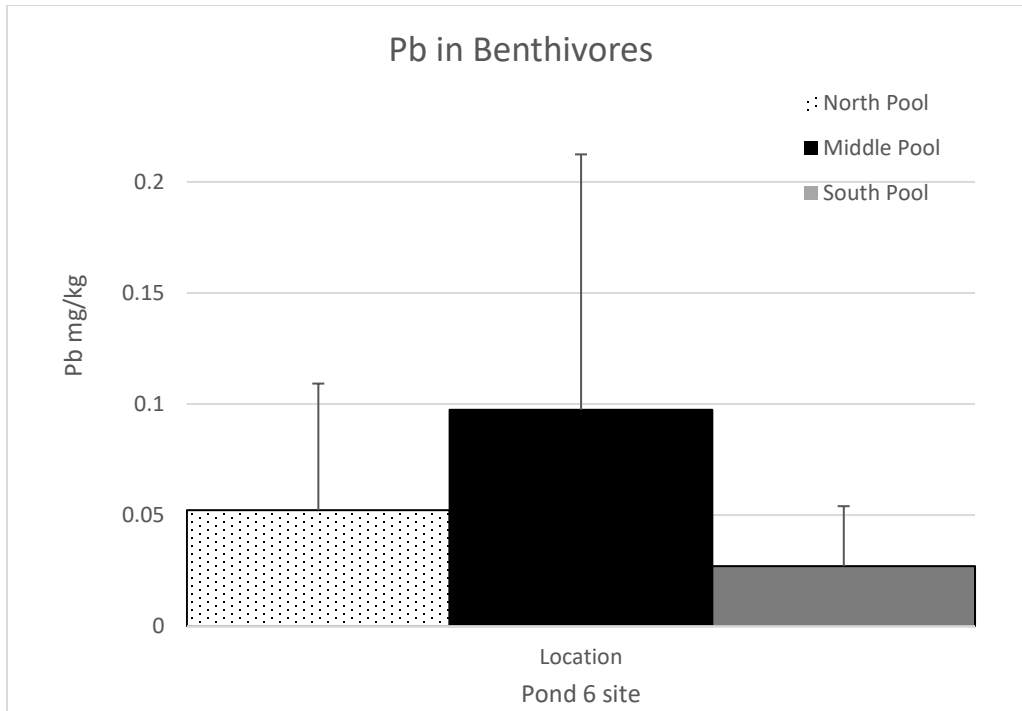


Figure 9. Lead mg/kg in benthivores from Pond 6 by pool.

Mercury

Snails

Mercury was detected (DL= 0.5 ng/g) in all snail samples. Mean ($U_{6,11} = 10.0$, $P = 0.02$) and maximum Hg concentrations were greater in snails from Pond 6, when compared to those from Long Pond (Table 25).

Table 25. Mercury ng/g in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	7.78	6	1.23	6.70	10.20
Pond6	15.11	11	6.06	6.50	24.90

Mercury concentrations were similar in snails from two areas of Long Lake and the north pool of Pond 6, regardless of the species composition of the sample (Fig. 10). However, snails from the middle pool (includes middle and ramp locations) were elevated by comparison. The middle pool

of pond 6 directly receives the inflow of the stream forming the delta; the ramp sample was collected at the boat ramp at the north end of the pool.

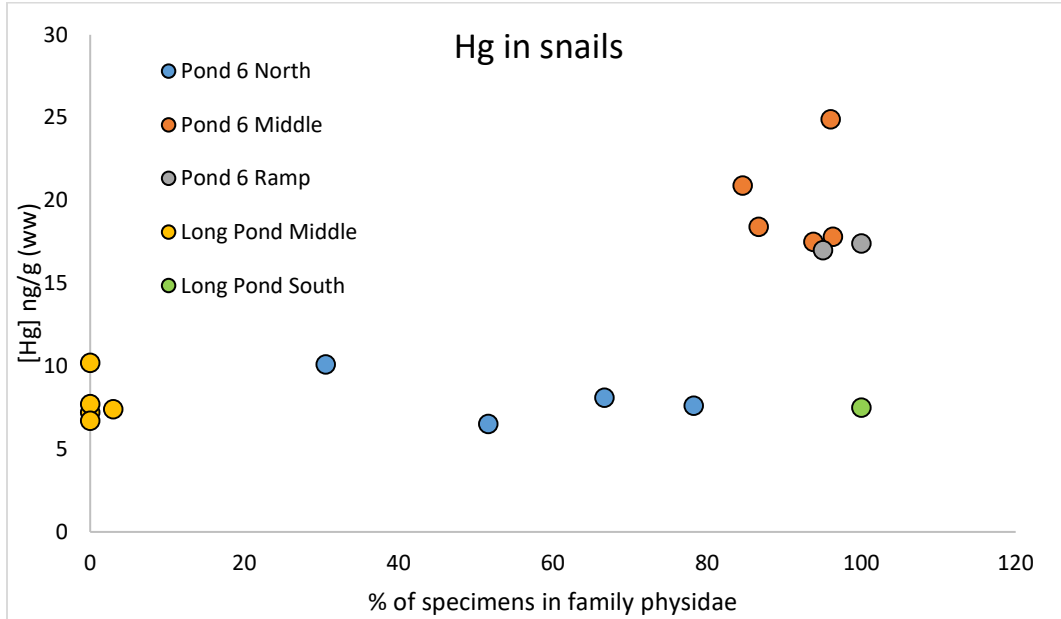


Fig. 10. Mercury ng/g in snails collected from Pond 6 and Long Pond.

Odonates

Mercury was detected (DL= 0.45 ng/g) in all odonate samples. The mean ($F_{1,13} = 6.1$, $P = 0.03$), minimum and maximum Hg concentrations were greater in odonates from Pond 6 (Table 26).

Table 26. Mercury ng/g in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	12.1625	8	4.52104	6.00	21.00
Pond6	19.7143	7	7.18365	11.70	32.50

Fish

Mercury was detected (DL= 2.18 ng/g) in all but one sample, a spotted sucker from Pond 6. Although the maximum concentration was observed in a bass from Pond 6, the mean liver Hg concentration in LMB was nominally greater in fish from Long Pond (Table 27). However, when log transformed to improve data distribution this difference was not significant ($F_{1,28} = 2.7$, $P =$

0.11). The smaller size-classes of bass from Long Pond had greater liver Hg concentrations as compared to those from Pond 6 (Fig. 11).

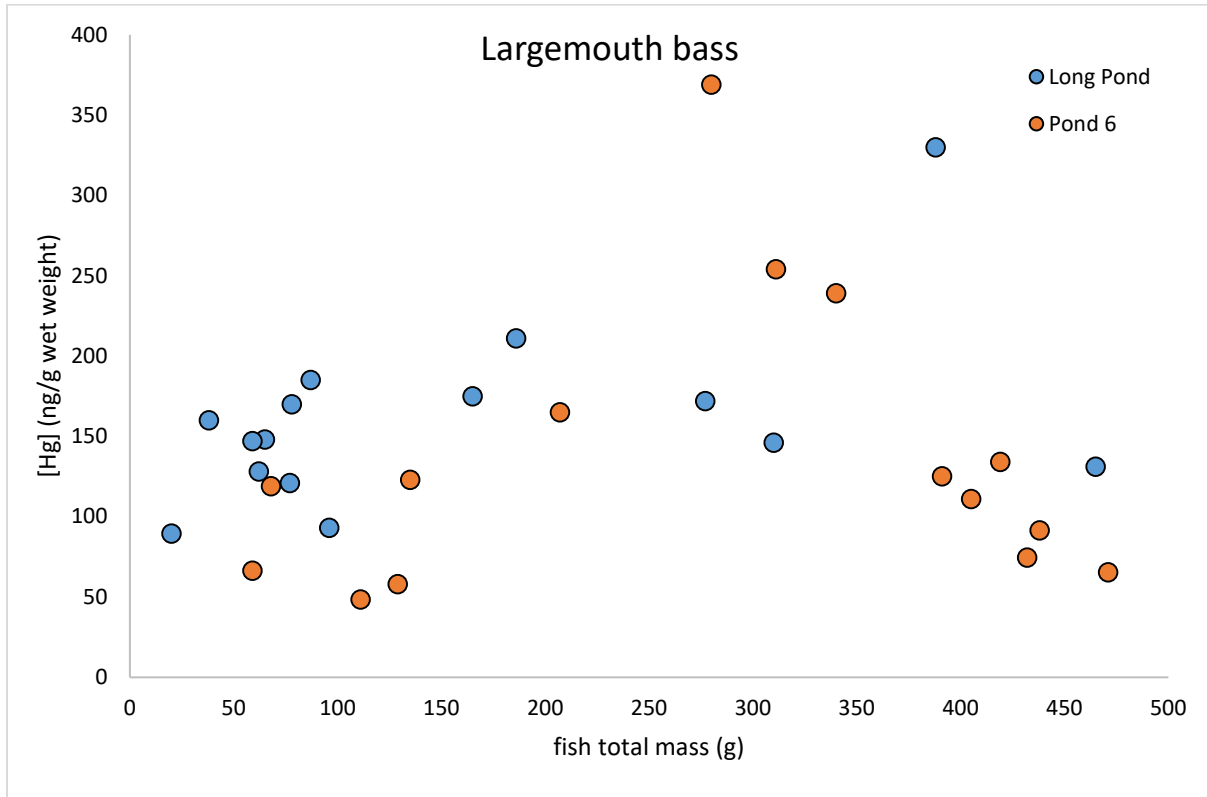


Fig. 11. Mercury concentrations in livers of largemouth bass from Pond 6 and Long Pond.

Table 27. Mercury ng/g in LM Bass livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	160.4	15	57.3	89.5	330.0
Pond6	136.2	15	88.8	48.3	369.0

When examined by pool, the mean Hg concentration in LMB from Pond 6 was greatest for the south pool, followed by the middle and then north pools (Fig. 12). Mercury concentrations were especially variable in fish from middle pool, which is the pool directly receiving the inflow of the stream forming the delta.

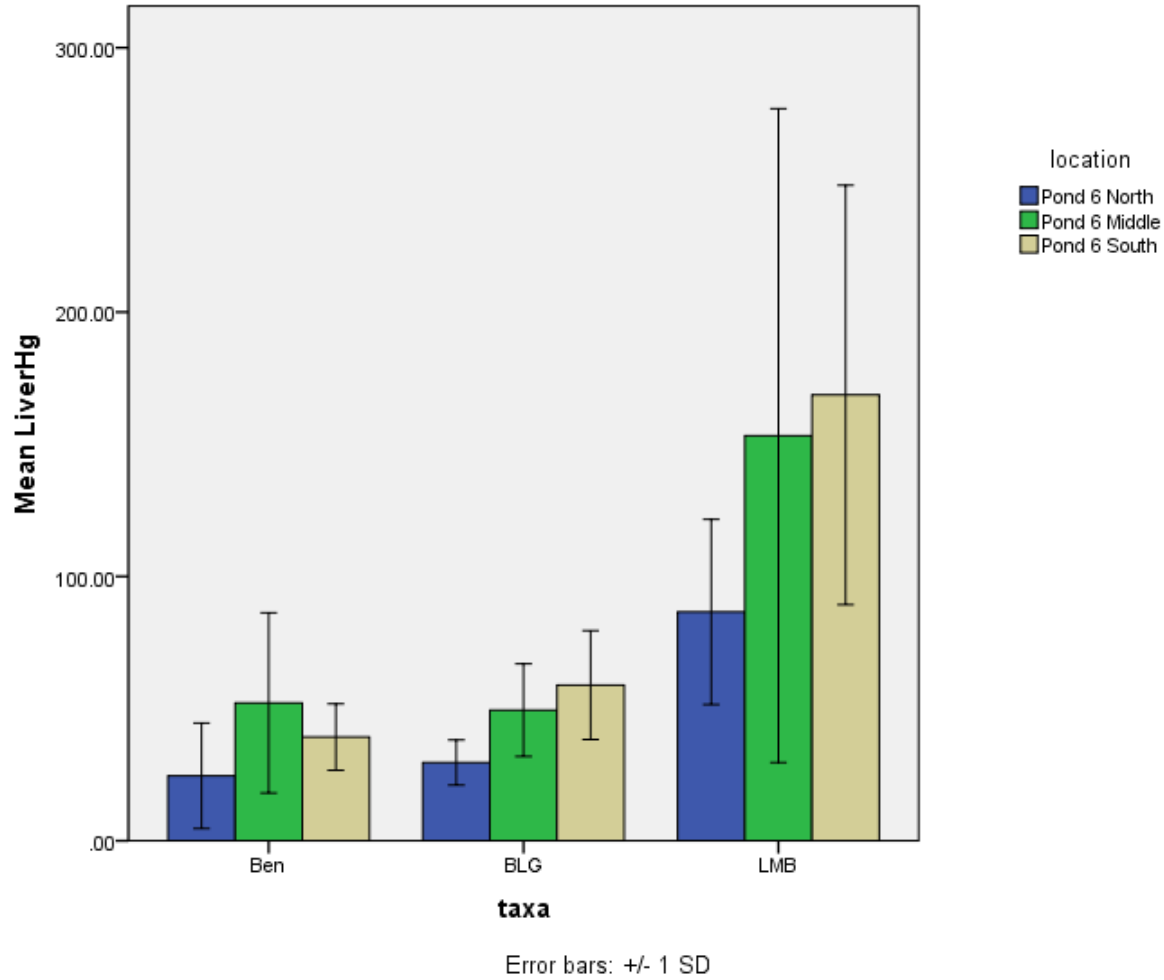


Fig. 12. Liver Hg concentrations in fish from Pond 6 by taxa and pool.

Mercury was detected ($DL < 2.16$ ng/g) in all LM Bass fillets. No clear pattern emerged in concentration of Hg in fillets of LM Bass between lakes (Fig. 13). Interestingly, concentrations initially increased with size before decreasing in larger fish. The mean Hg concentrations in LM Bass livers were similar between lakes (Table 28, $F_{1,28} = 0.21$, $P = 0.65$).

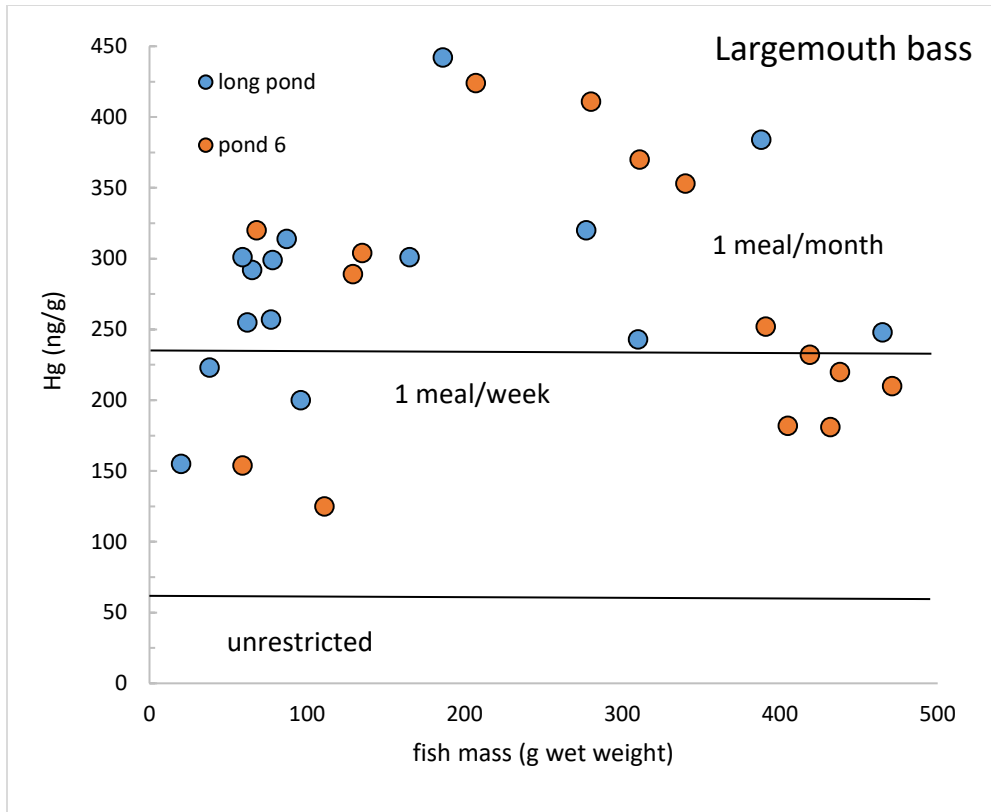


Fig. 13. Mercury concentrations ng/g in fillets of LM Bass from Pond 6 and Long Pond.

Table 28. Mercury ng/g in LM Bass Fillets.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	282.3	15	70.7	155.0	442.0
Pond6	268.5	15	93.5	125.0	424.0

Mean Hg concentrations were notably greater in LMB from the south and middle pools, when compared to those from the north pool (Fig. 14).

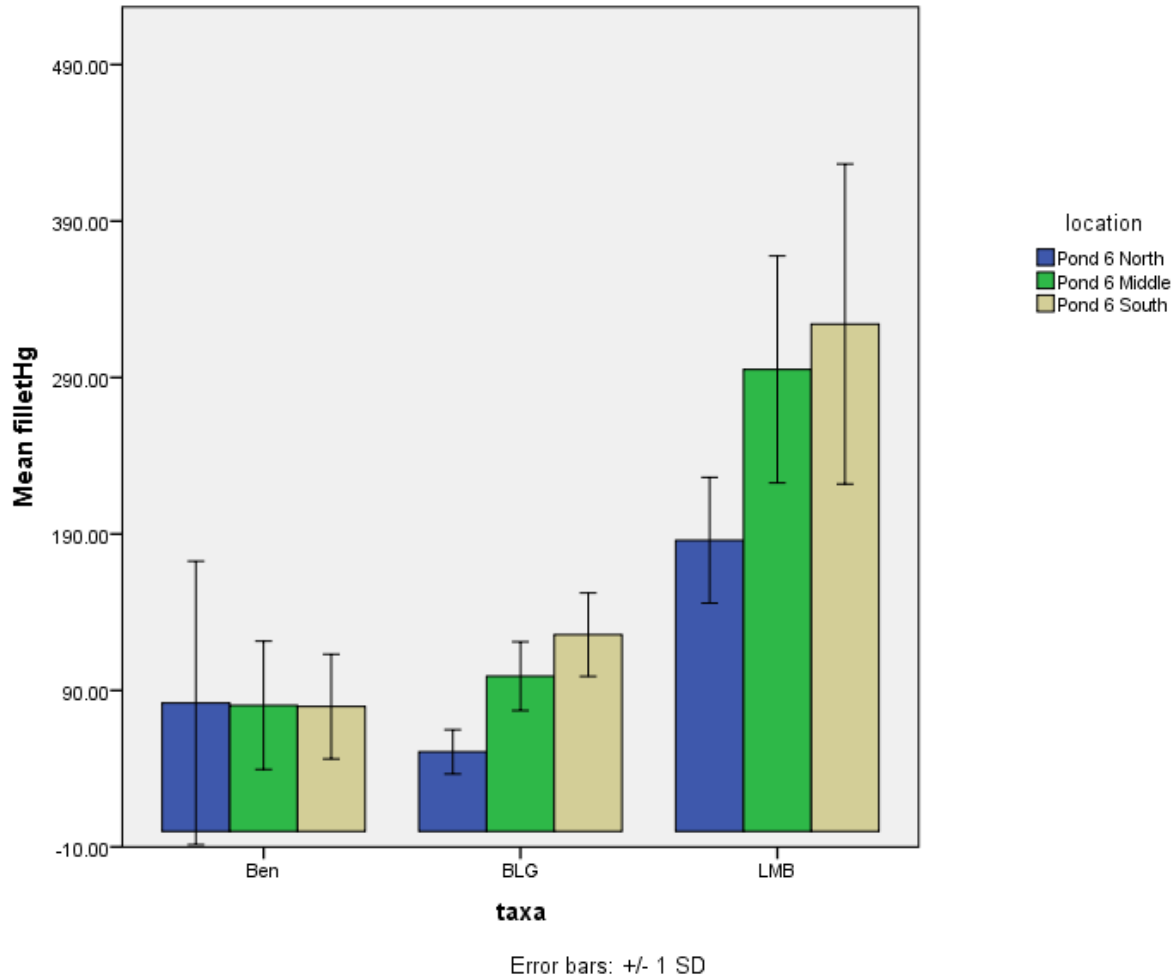


Fig. 14. Mercury concentration ng/g in fillets of largemouth bass from Pond 6, by pool.

Generally, Hg concentrations were greatest in livers of SUN from Long Pond across the range of sizes examined (Fig. 15). The minimum, maximum and mean Hg concentrations were greater in SUN livers from Long Pond, than in those from Pond 6 (Table 29). When log transformed to improve data distribution the mean concentration was significantly greater ($F_{1,28} = 7.5$, $P = 0.01$) in SUN from Long Pond than in those from Pond 6.

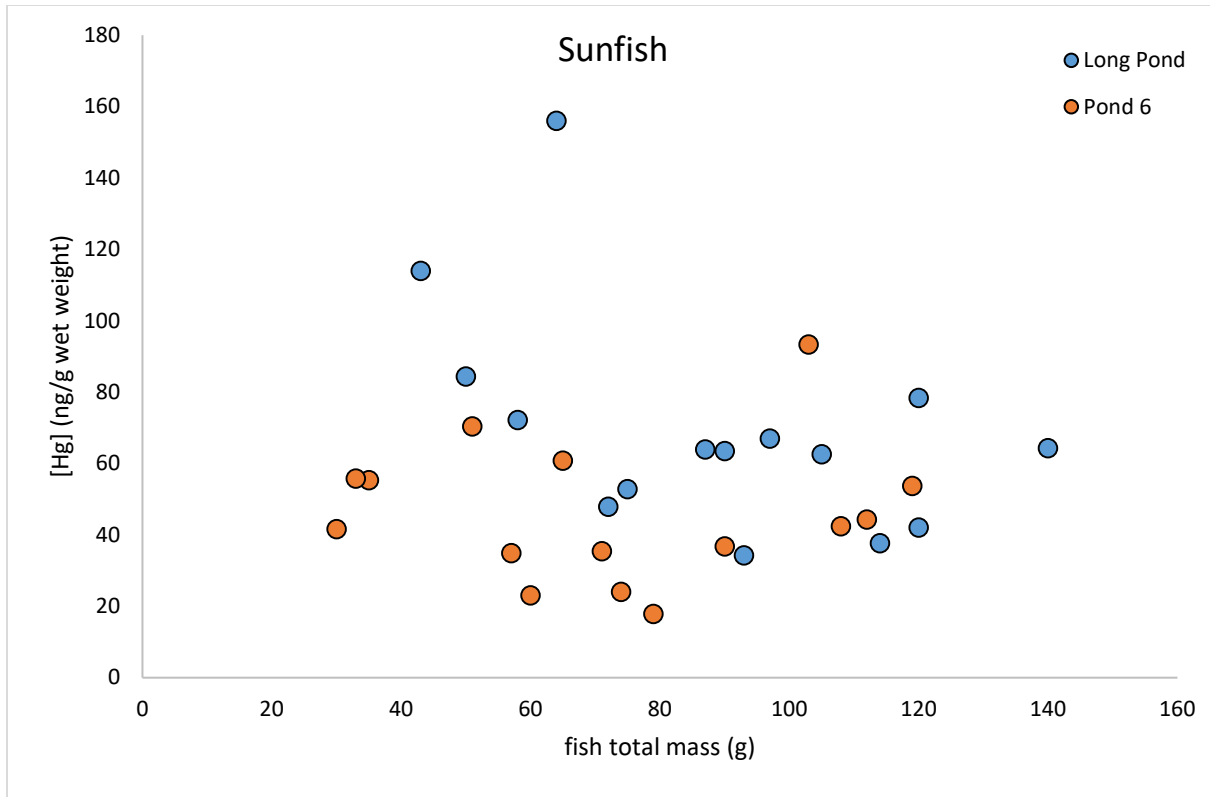


Fig. 15. Mercury concentrations in livers of sunfish from Pond 6 and Long Pond.

Table 29. Mercury ng/g in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	69.4	15	31.2	34.3	156.0
Pond6	46.0	15	19.7	17.9	93.3

Mercury was detected ($DL < 2.16$ ng/g) in all SUN fillets. Mercury concentrations in 23/30 (77%) of sunfish fillets from both lakes fell within sportfish consumption advisory meal restriction categories for sensitive cohorts. Only one fillet, from a redear sunfish collected at Long Pond, fell within the 1 meal/month consumption category. Mercury concentrations in SUN from the middle pool of Pond 6 were intermediate in relation to the north and south pools (Fig. 16).

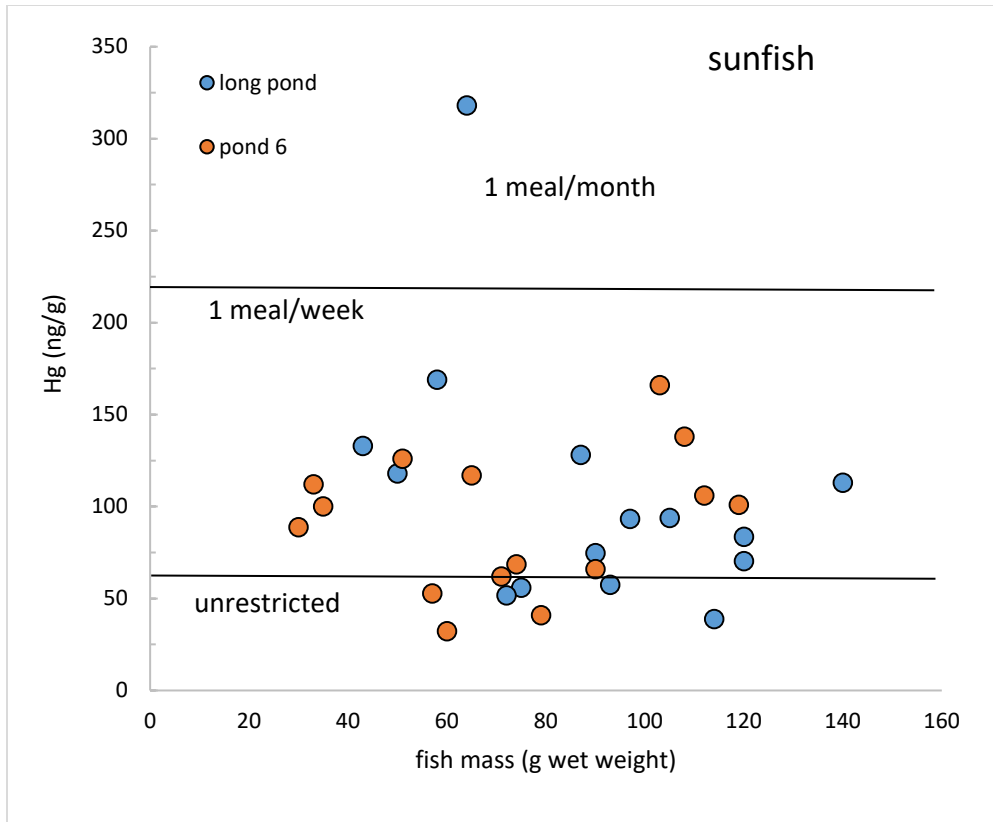


Fig. 16. Mercury concentrations ng/g in fillets of sunfish from Pond 6 and Long Pond.

With the exclusion of one outlier ($3.1 \text{ sd} > \text{mean}$), a redear sunfish from Long Pond, Hg concentrations were similar in sunfish from the two lakes (Table 30, $F_{1,28} = 0.29$, $P = 0.60$).

Table 30. Mercury ng/g in fillets from sunfish.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	106.6	15	68.5	38.8	318.0
Pond6	91.8	15	37.8	32.2	166.0

The mean mercury concentrations in BEN livers varied little between ponds (Table 31).

Table 31. Mercury ng/g in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	39.4	4	31.6	4.5	80.8
Pond6	38.7	15	25.0	1.1	103.0

Mercury was detected (DL < 2.16 ng/g) in all BEN fillets. The mean log-transformed ($F_{1,19} = 4.5$, $P = 0.048$) and maximum Hg concentrations in fillets were considerably greater in BEN from Pond 6 (Table 32). The mean Hg concentrations varied little across the Pond 6 pools (Fig. 14).

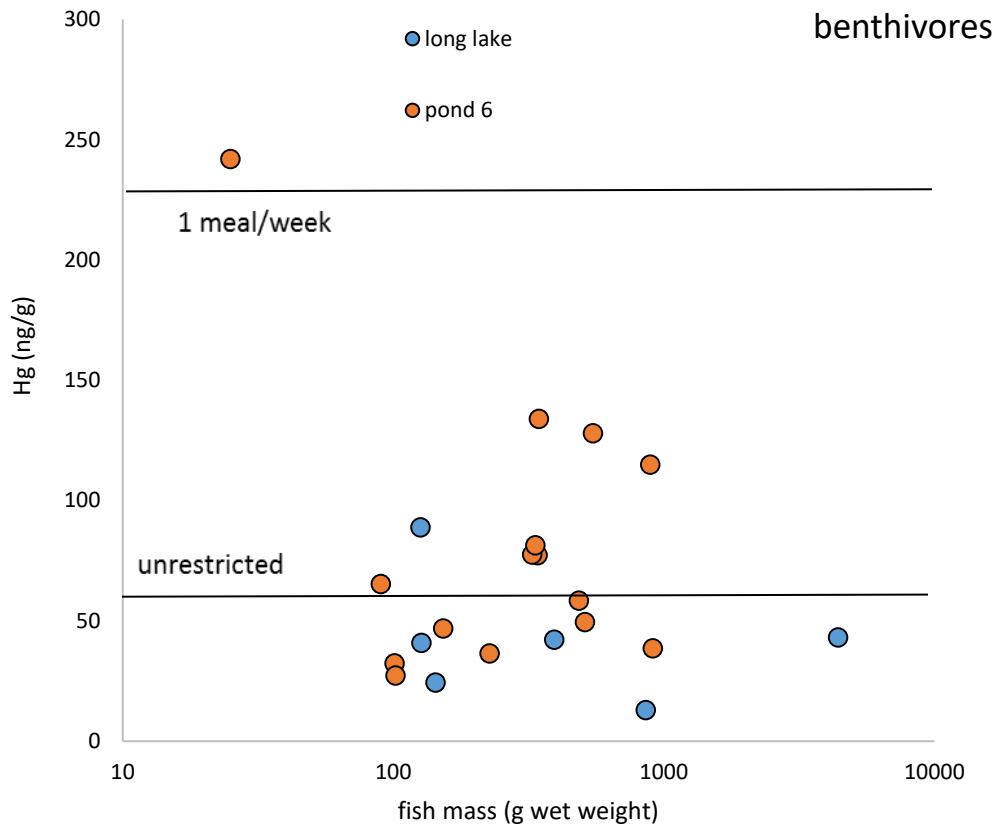


Fig. 17. Mercury concentrations ng/g ww in fillets of benthivores from Pond 6 and Long Pond.

Table 32. Mercury ng/g in filets from benthivores.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	42.1	6	25.9	13.0	88.9
Pond6	80.7	15	56.1	27.3	242.0

Molybdenum

Snails

Molybdenum was detected (DL= 0.005 mg/kg) in all snail samples, and concentrations were similar between lakes (Table 33; $F_{1,15} = 1.3$, $P = 0.28$).

Table 33. Molybdenum mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.19	6	0.06	0.09	0.28
Pond6	0.21	11	0.03	0.16	0.26

Odonates

Molybdenum was detected (DL= 0.005 mg/kg) in 13/15 (87%) odonate larvae samples. This included 7/8 (88%) samples from Long Lake, and 5/7 (71%) from Pond 6. Mean Mo concentrations were similar between lakes (Table 34; $F_{1,13} = 0.04$, $P = 0.85$).

Table 34. Molybdenum mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.03	8	0.02	0.00	0.06
Pond6	0.04	7	0.02	0.00	0.07

Fish

Molybdenum was detected (DL= 0.0006 mg/kg) in all fish samples. Mean Mo concentrations in LMB varied little between Ponds (Table 35).

Table 35. Molybdenum mg/kg in LM Bass livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.23	15	0.04	0.18	0.32
Pond6	0.24	15	0.05	0.17	0.35

The maximum Mo concentration was notably greater in a SUN from Pond 6 (Table 36).

However, mean concentrations did not differ significantly between Ponds ($U_{15,15} = 78.5$, $P = 0.16$).

Table 36. Molybdenum mg/kg in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.17	15	0.06	0.00	0.29
Pond6	0.22	15	0.14	0.00	0.58

The mean Mo concentrations in BEN livers did not differ significantly between ponds (Table 37; $U_{4,15} = 17.0$, $P = 0.19$).

Table 37. Molybdenum mg/kg in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.19	4	0.22	0.04	0.51
Pond60	0.26	15	0.18	0.05	0.74

Selenium

Snails

Selenium was detected ($DL = 0.06$ mg/kg) in all but one snail sample, that collected from Long Lake. The mean ($F_{1,15} = 9.4$, $P = 0.01$), minimum and maximum Se concentrations were greater in snails from Pond 6 (Table 38).

Table 38. Selenium mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.44	6	0.22	0.03	0.68
Pond6	0.69	11	0.11	0.51	0.86

Selenium concentrations were similar in snails from the south end of Long Lake and most of the Pond 6 samples, regardless of the species composition of the sample (Fig. 18). However, Se concentrations were very low in physid snails from the middle of Long Lake and several of the

samples from the middle pool of Pond 6. The middle pool of pond 6 directly receives the inflow of the stream forming the delta; the ramp sample was collected at the boat ramp at the north end of the pool. The mean Se concentration in snails from the middle pool of Pond 6 (0.73 mg/kg) was 18% greater than that in samples from the north pool of that pond (0.62 mg/kg).

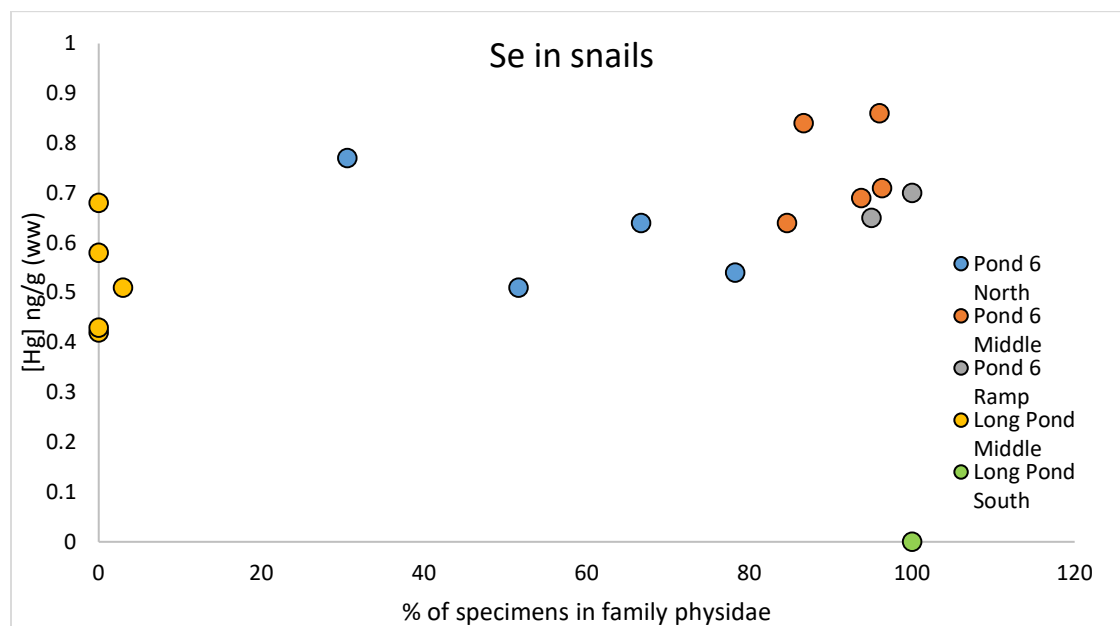


Fig. 18. Concentrations (ng/g ww) of mercury in snails from Pond 6 and Long Pond.

Odonates

Selenium was detected (DL= 0.06 mg/kg) in 6/15 (40%) odonate larvae samples. This included 2/8 (25%) samples from Long Pond and 4/7 (57%) from Pond 6 (only detected in middle pool). The mean and maximum concentrations were notably greater in samples from Pond 6 (Table 39); however, the number of samples with detectable concentrations was small. All the samples from Pond 6 with detectable concentrations were collected from the middle pool.

Table 39. Selenium mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.27	2	0.06	0.23	0.31
Pond6	0.41	4	0.12	0.24	0.51

Fish

Selenium was detected (DL= 0.06) in all fish samples. Hepatic Se concentrations were, with a few exceptions, larger in bass from Pond 6 across the range of size classes (Fig. 19). Mean, minimum and maximum liver Se concentrations were greater in LMB from Pond 6 (Table 40). The mean of log-transformed Se concentrations was significantly greater ($F_{1,28} = 21.4, P < 0.01$) in LMB from Pond 6 than in those from Long Pond. Selenium concentrations were greater in LMB from the middle pool of Pond 6 than in those from the North pool, and to a lesser extent, those from South pool (Fig. 20).

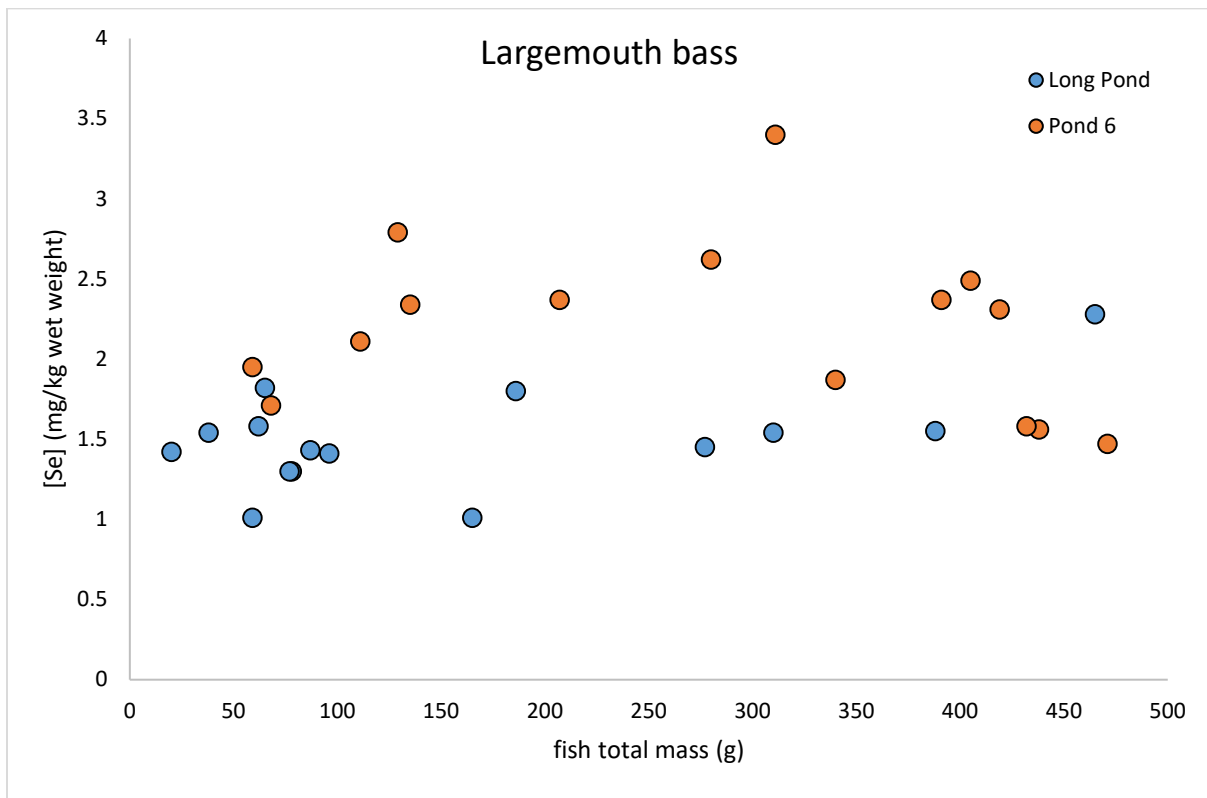


Fig. 19. Selenium concentrations in livers of largemouth bass from Pond 6 and Long Pond.

Table 40. Selenium mg/kg in largemouth bass.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	1.50	15	0.32	1.01	2.28
Pond6	2.20	15	0.53	1.47	3.40

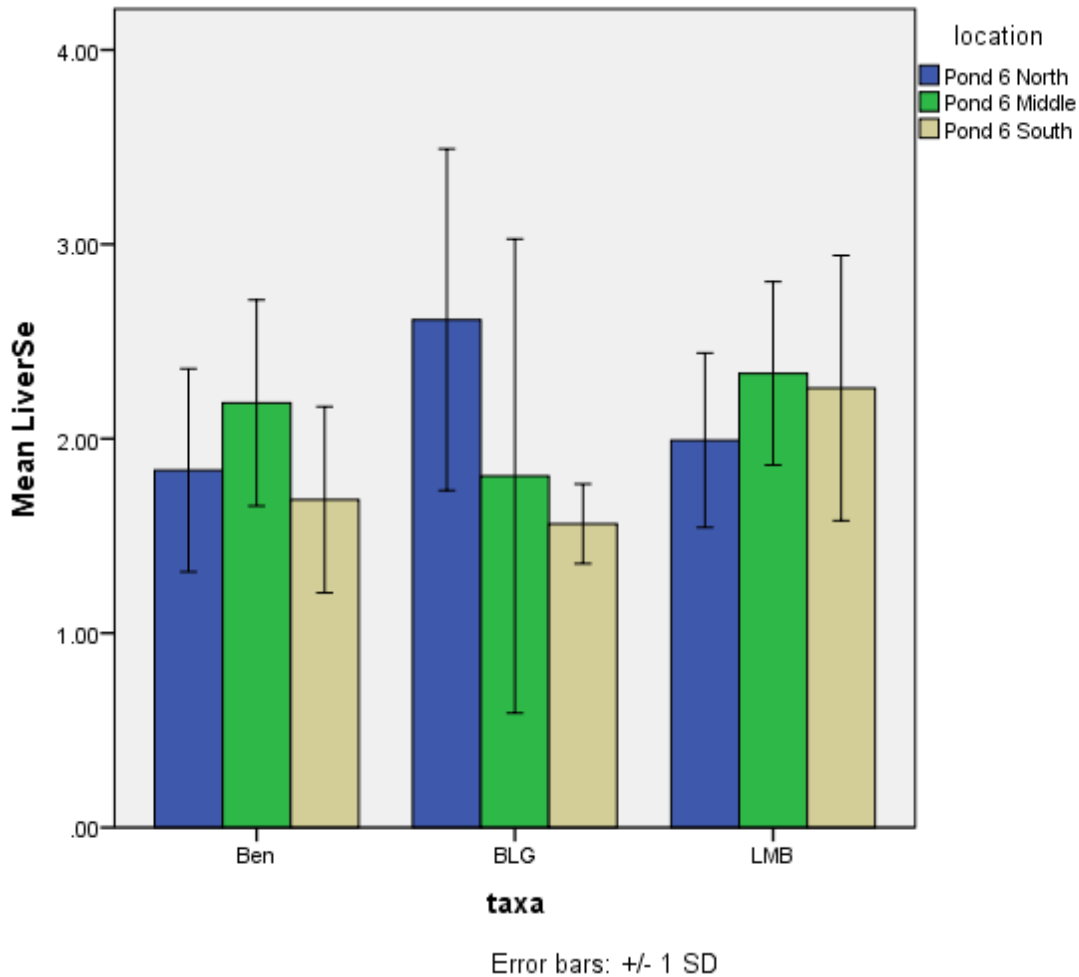


Fig. 20. Liver selenium concentrations in fish from Pond 6 by taxa and pool.

Concentrations of Se were greater in livers of SUN from Pond 6 across small- to mid-size ranges (Fig. 21); however, this was not the case in larger fish. The mean ($U_{15,15} = 35.5$, $P < 0.01$), minimum and maximum Se concentrations were greater in SUN from Pond 6 (Table 41). Selenium concentrations were greatest, on average, in SUN from the north pool and most highly variable in those from the middle pool (Fig. 20).

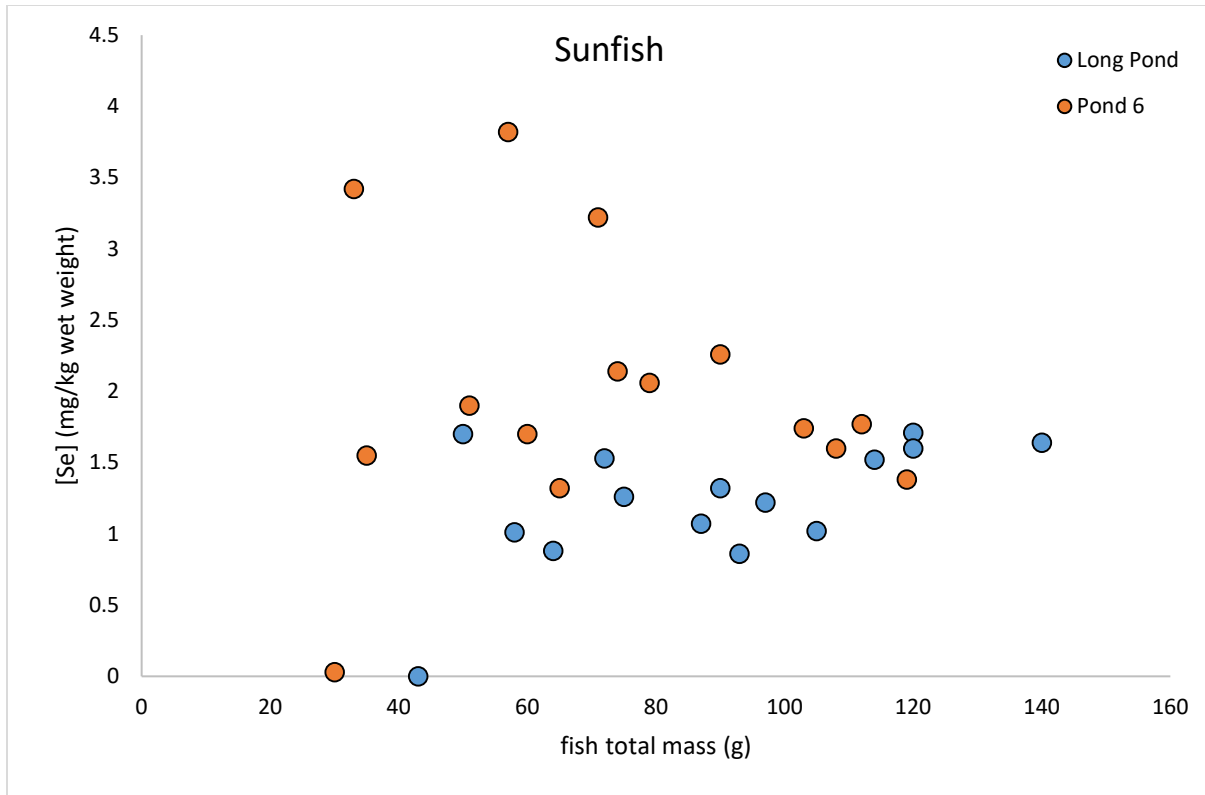


Fig. 21. Selenium concentrations in livers of sunfish from Pond 6 and Long Pond.

Table 41. Selenium mg/kg in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	1.22	15	0.45	0.00	1.71
Pond6	1.99	15	0.93	0.03	3.82

Mean ($U_{4,15} = 6.0$, $P = 0.02$), minimum and maximum Se concentrations were greater in liver of BEN from Pond 6 (Table 42). Concentrations were greatest in BEN from the middle pool of Pond 6 (Fig. 20).

Table 42. Selenium mg/kg in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	1.07	4	0.44	0.62	1.67
Pond6	1.90	15	0.52	1.26	2.75

Thallium

Snails

Thallium was detectable (DL= 0.0005 mg/kg) in all snail samples. Thallium concentrations in snails were very similar between lakes (Table 43).

Table 43. Thallium mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.009	6	0.004	0.002	0.014
Pond6	0.009	11	0.003	0.005	0.014

The mean Tl concentration in snails from the middle pool of Pond 6 (0.011 mg/kg) was 57% greater than that in samples from the north pool of that pond (0.007 mg/kg).

Odonates

Thallium was detected (DL= 0.0005 mg/kg) in 9/15 (60%) odonate samples, including 2/8 (25%) from Long Lake and all of those from Pond 6 (Table 44).

Table 44. Thallium mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.002	2	0.000	0.002	0.002
Pond6	0.003	7	0.001	0.002	0.005

The mean Tl concentration in odonate larvae from the middle pool of Pond 6 (0.0035 mg/kg) was 17% greater than that in samples from the south pool of that pond (0.0030 mg/kg).

Fish

Thallium was detected (DL= 0.0005 mg/kg) in 29/79 (37%) fish livers. Thallium was detected in all LMB from Long Pond and 14/15 (93%) of those from Pond 6. With the exclusion of one outlier (4.2 sd > mean; 0.072 mg/kg) associated with a specimen from Pond 6 (Fig. 22), mean

log-transformed liver Tl concentrations in bass were similar between ponds (Table 45; $F_{1,28} = 3.2$, $P = 0.09$).

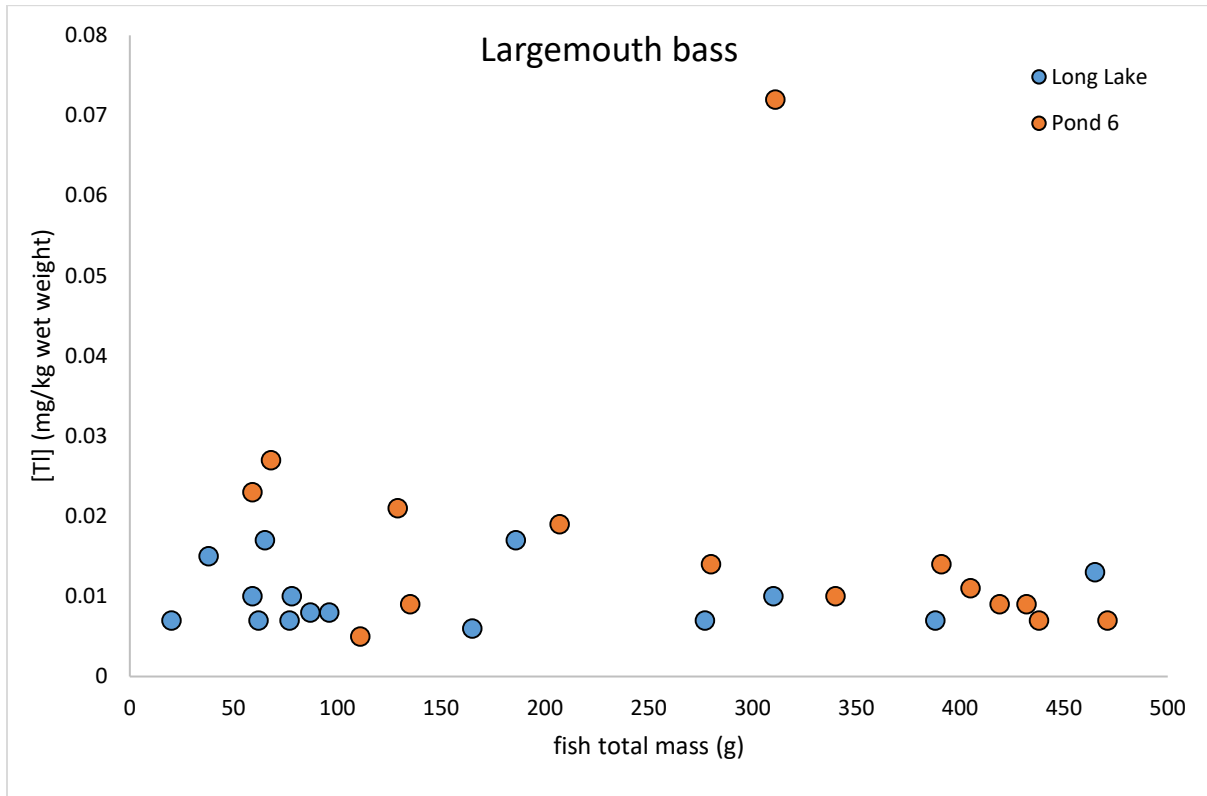


Fig. 22. Thallium concentrations in livers of largemouth bass from Pond 6 and Long Pond.

Table 45. Thallium mg/kg in LM Bass livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.010	15	0.004	0.006	0.017
Pond6	0.017	14	0.017	0.005	0.072

Thallium was detected in all SUN livers. Mean ($U_{15, 15} = 49.0$, $P = 0.01$) and maximum Tl concentrations were greater in SUN from Pond 6, when compared to those from Long Pond (Fig. 23, Table 46).

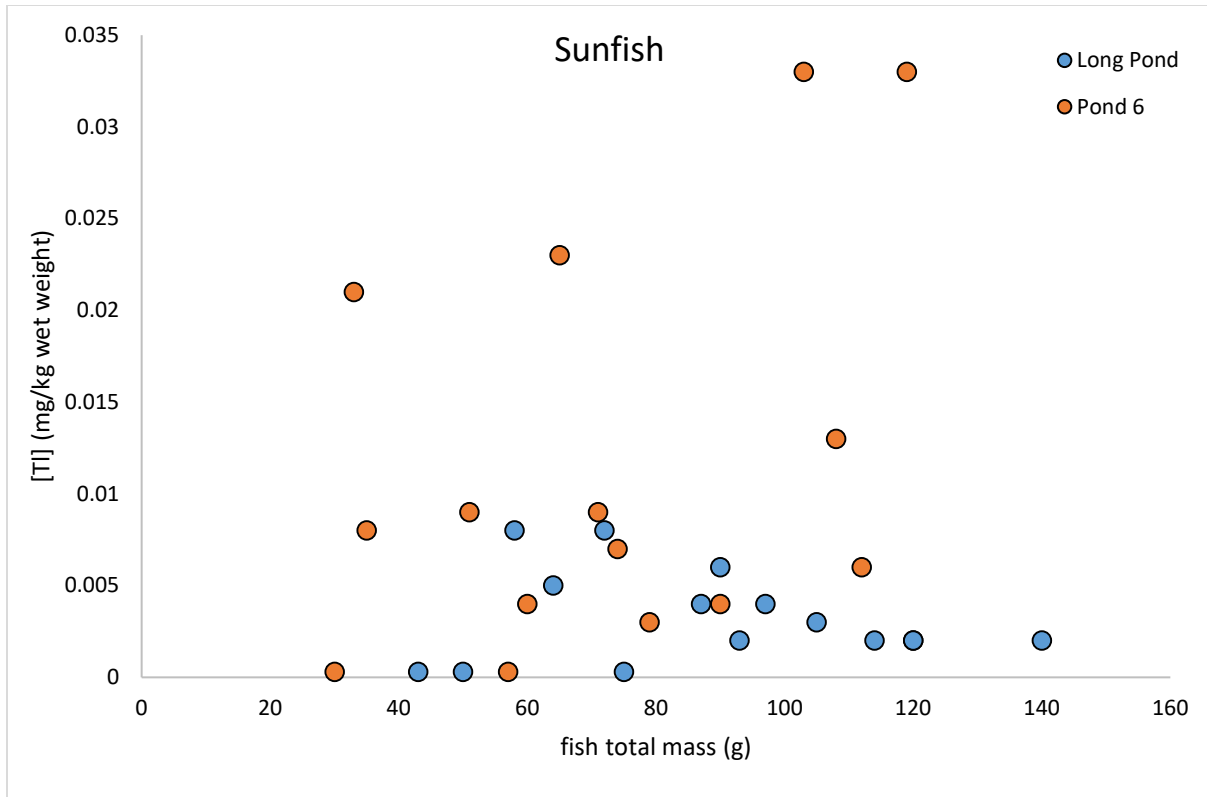


Fig. 23. Thallium concentrations in livers of sunfish from Pond 6 and Long Pond.

Table 46. Thallium mg/kg in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.003	15	0.003	0.000	0.008
Pond6	0.012	15	0.012	0.000	0.033

Concentrations of Tl were notably greater in SUN and LMB from the south pool of Pond 6 (Fig. 24).

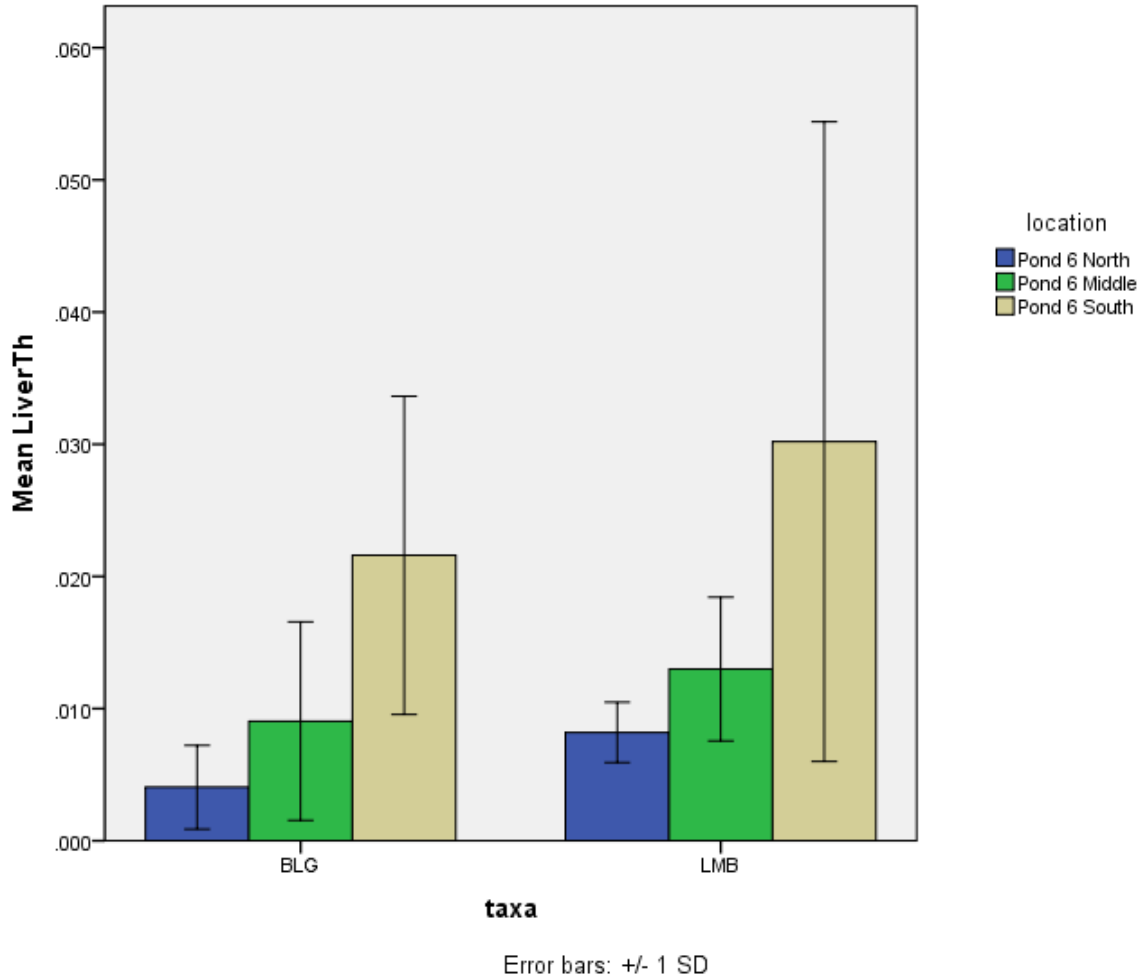


Figure 24. Concentrations of thallium in the livers of sunfish and largemouth bass from Pond 6 by taxa and pool.

Thallium was detected in 2/4 (50%) of BEN livers from Long Pond and 2/15 (13%) of those from Pond 6 (Table 47).

Table 47. Thallium mg/kg in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.003	2	0.001	0.002	0.004
Pond6	0.002	2	0.000	0.002	0.002

Vanadium

Snails

Vanadium was detectable (DL= 0.02 mg/kg) in all snail samples. The mean V concentration did not differ between lakes (Table 48; $F_{1,15} = 0.3$, $P = 0.60$).

Table 48. Vanadium mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.76	6	0.43	0.20	1.44
Pond6	0.87	11	0.43	0.35	1.55

Odonates

Vanadium was detected (DL= 0.02 mg/kg) in 9/15 (60%) odonate samples, including 2/8 (25%) from Long Lake and all of those from Pond 6 (Table 49).

Table 49. Vanadium mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.25	2	0.10	0.18	0.32
Pond6	0.31	7	0.15	0.17	0.62

Fish

Vanadium was detected (DL= 0.021 mg/kg) in 48/79 (61%) fish livers, including: 0/15 LMB from Long Pond and 9/15 (60%) from Pond 6; 9/15 (60%) sunfish from Long Pond and 12/15 (80%) from Pond 6; and 3/4 (75%) benthivores from Long Pond and 7/15 (47%) of those from Pond 6. Vanadium was not detectable in LM Bass from Long Pond, nor in smaller bass from Pond 6. However, this element accumulated in larger bass in Pond 6 (Fig. 15, Table 50). Mean V concentrations were greatest in LMB from the middle pool of Pond 6 (Fig. 16), whereas means for fish from the other pools were similar.

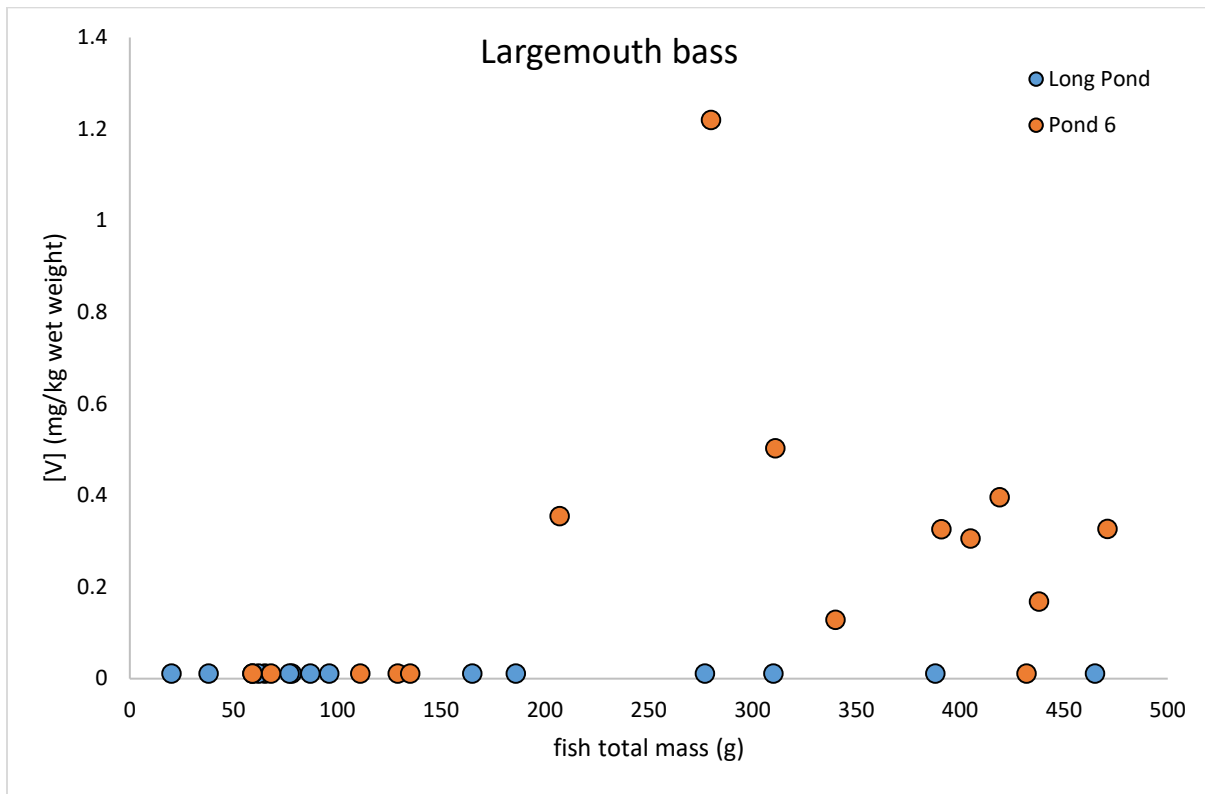


Fig. 15. Vanadium concentrations in livers of largemouth bass from Pond 6 and Long Pond.

Table 50. Vanadium mg/kg in LM Bass livers.

Pond*	Mean	N	Std. Deviation	Minimum	Maximum
Pond6	0.25	15	0.32	0.01	1.22

*ND in livers of bass from Long Pond

Vanadium concentrations were greater in livers of small- to mid-sized SUN from Pond 6, however concentrations were greater in larger individuals from Long Pond (Fig. 17). Mean V concentrations were not significantly greater in SUN from Pond 6 (Table 51; $U_{15, 15} = 76$, $P = 0.13$). The mean V concentrations in SUN from the middle pool were intermediate, when compared to the other pools (Fig. 16).

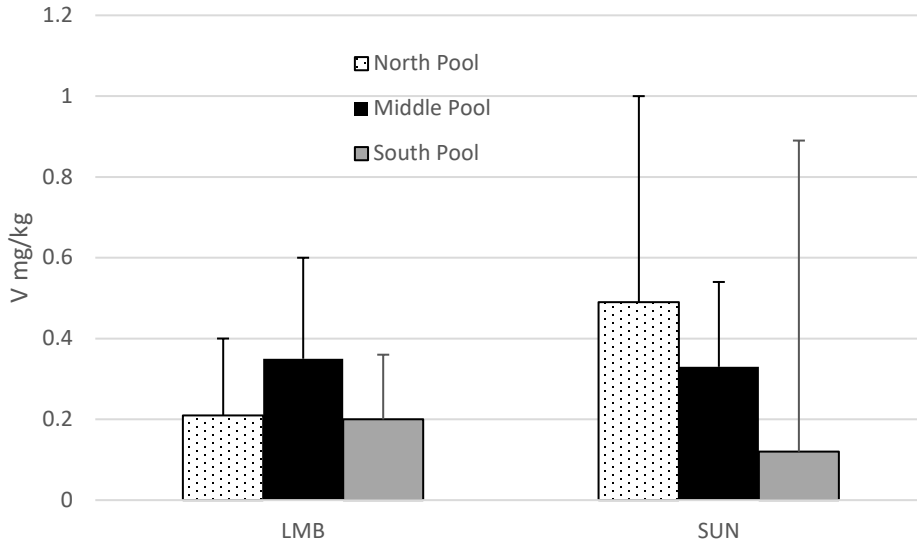


Figure 16. Vanadium concentrations mg/kg in fish from Pond 6 by pool.

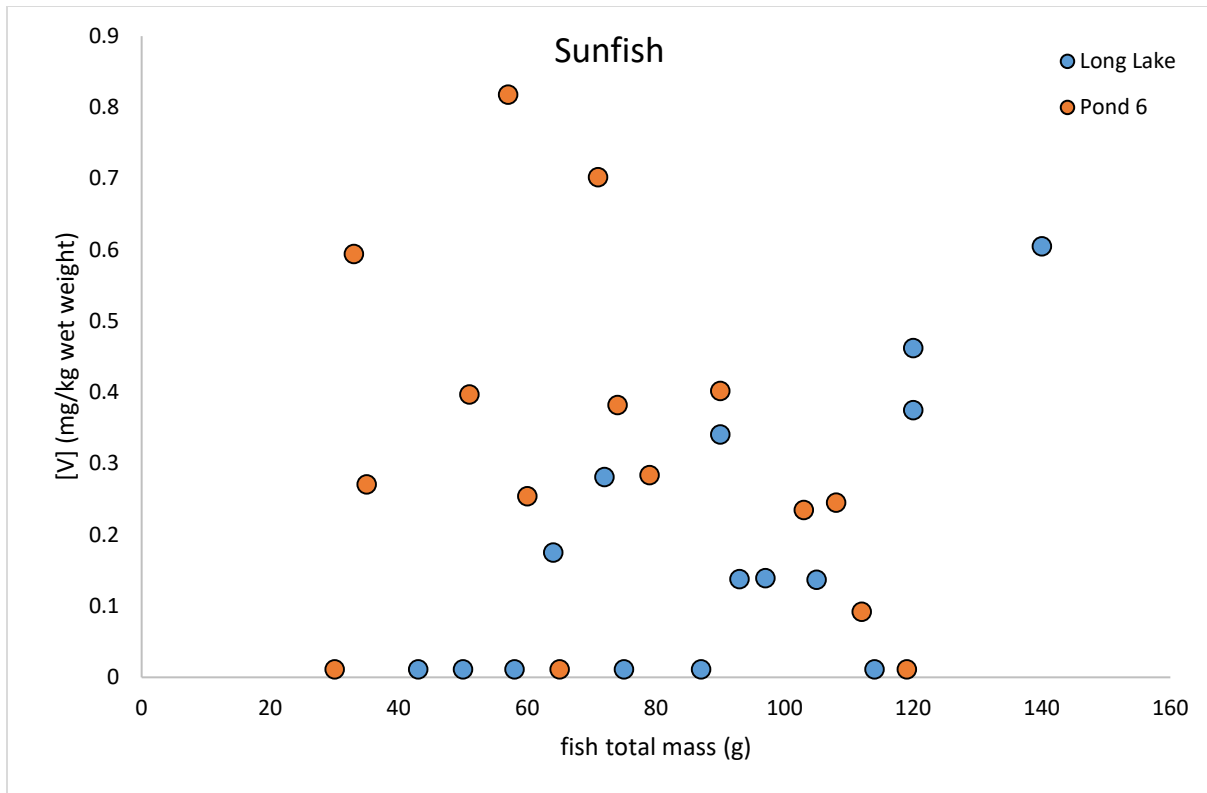


Fig. 17. Vanadium concentrations in livers of sunfish from Pond 6 and Long Pond.

Table 51. Vanadium mg/kg in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongL	0.18	15	0.19	0.01	0.61
Pond6	0.31	15	0.25	0.01	0.82

Mean V concentrations in BEN were similar between lakes (Table 52). Vanadium was detected in 4/5 (80%) BEN from middle pool of Pond 6, and 1/5 (20%) from both the north and south pools of that pond.

Table 52. Vanadium mg/kg in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	0.51	3	0.55	0.01	1.29
Pond6	0.55	7	0.59	0.02	1.86

Zinc

Snails

Zinc was detected (DL= 0.02 mg/kg) in all snail specimens. Zinc concentrations were similar between lakes (Table 53; $F_{1,15} = 1.3$, $P = 0.28$).

Table 53. Zinc mg/kg in snails.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	13.1	6	2.3	10.6	17.4
Pond6	14.2	11	1.8	11.9	17.7

The mean Zn concentration in snails from the middle pool of Pond 6 (15.0 mg/kg) was similar to that in samples from the north pool of that pond (13.0 mg/kg).

Odonates

Zinc was detected (DL= 0.02 mg/kg) in all odonate larvae samples. Zinc concentrations in odonate larvae were quite similar between lakes (Table 54). The mean Zn concentration in odonate larvae from the middle pool of Pond 6 (19.8 mg/kg) was 57% greater than that in samples from the south pool of that pond (12.6 mg/kg).

Table 54. Zinc mg/kg in odonate larvae.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	16.0	8	4.1	10.1	21.4
Pond6	16.7	7	4.2	12.0	22.4

Fish

Zinc was detected (DL= 0.02 mg/kg) in all fish samples. The mean ($F_{1,28} = 7.7$, $P = 0.01$) and maximum Zn concentrations were greatest in LMB from Long Pond (Fig. 18; Table 55). Zinc concentrations in LMB varied little between pools (Fig. 19).

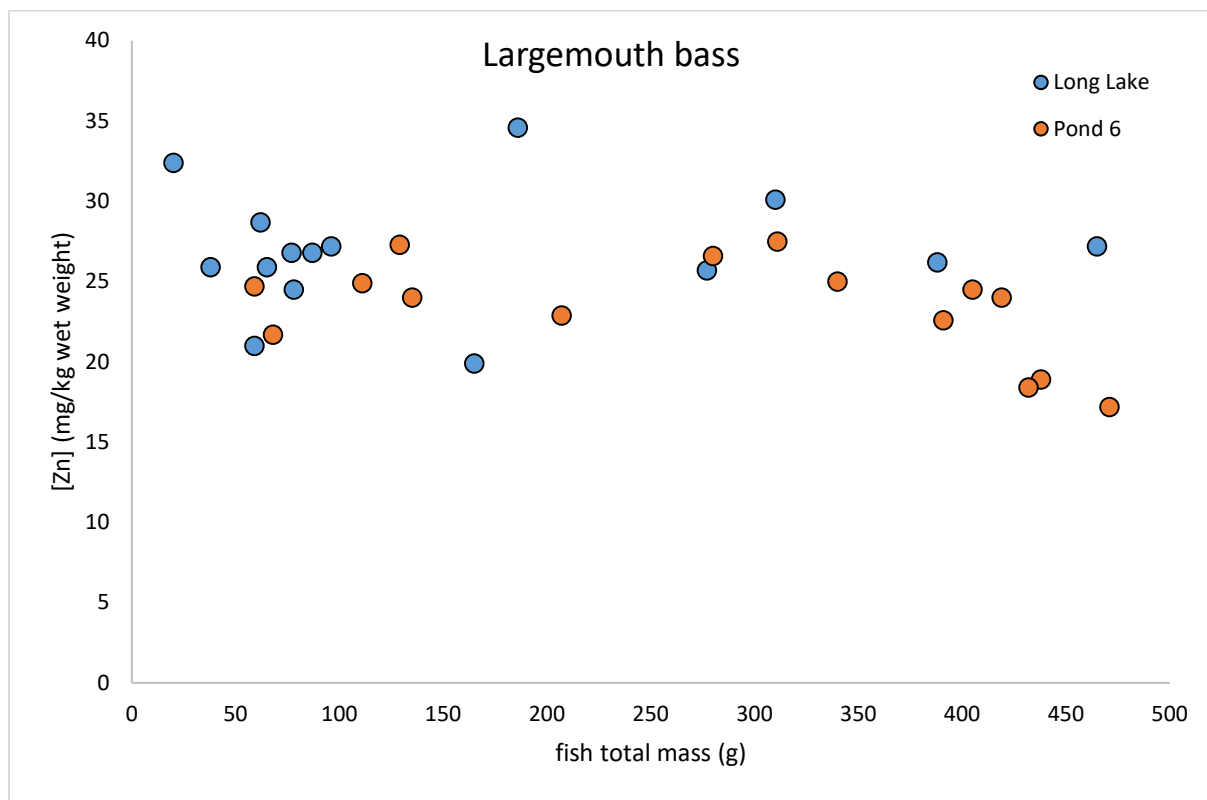


Figure 18. Zinc concentrations in the livers of largemouth bass from Pond 6 and Long Pond.

Table 55. Zinc mg/kg in LM Bass livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	26.9	15	3.8	19.9	34.6
Pond6	23.4	15	3.1	17.2	27.5

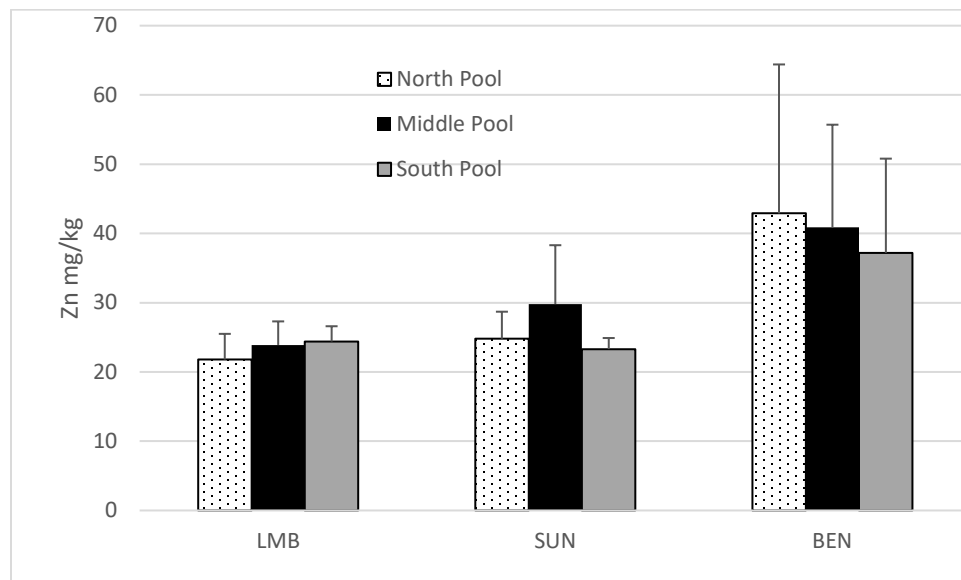


Figure 19. Zinc concentrations mg/kg in fish from Pond 6 by pool.

Zinc concentrations were greatest in smaller-sized SUN from Pond 6, though similar to those from Long Pond in other sizes classes (Fig. 20). Mean log-transformed ($F_{1,28} = 7.3$, $P = 0.01$) and maximum Zn concentrations were greater in SUN from Pond 6 (Table 56). The mean Zn concentrations in SUN was greater in those from the middle pool (Fig. 19).

The maximum hepatic Zn concentration in BEN was observed in a large common carp from Long Pond (Fig. 21). With this fish included, the mean Zn concentration though not significantly greater in fish from Long Pond (Table 57; $U_{4,15} = 26$, $P = 0.69$). With this value excluded, the mean (28.9 mg/kg) Zn concentration in BEN from Long Pond was less than that in fish from Pond 6, though not significantly so ($U_{3,15} = 11.0$, $P = 0.17$). The mean Zn concentrations in BEN increased slightly from the south to north pools (Fig. 19). Zinc concentrations in the livers of BEN were more highly variable than in SUN or LMB.

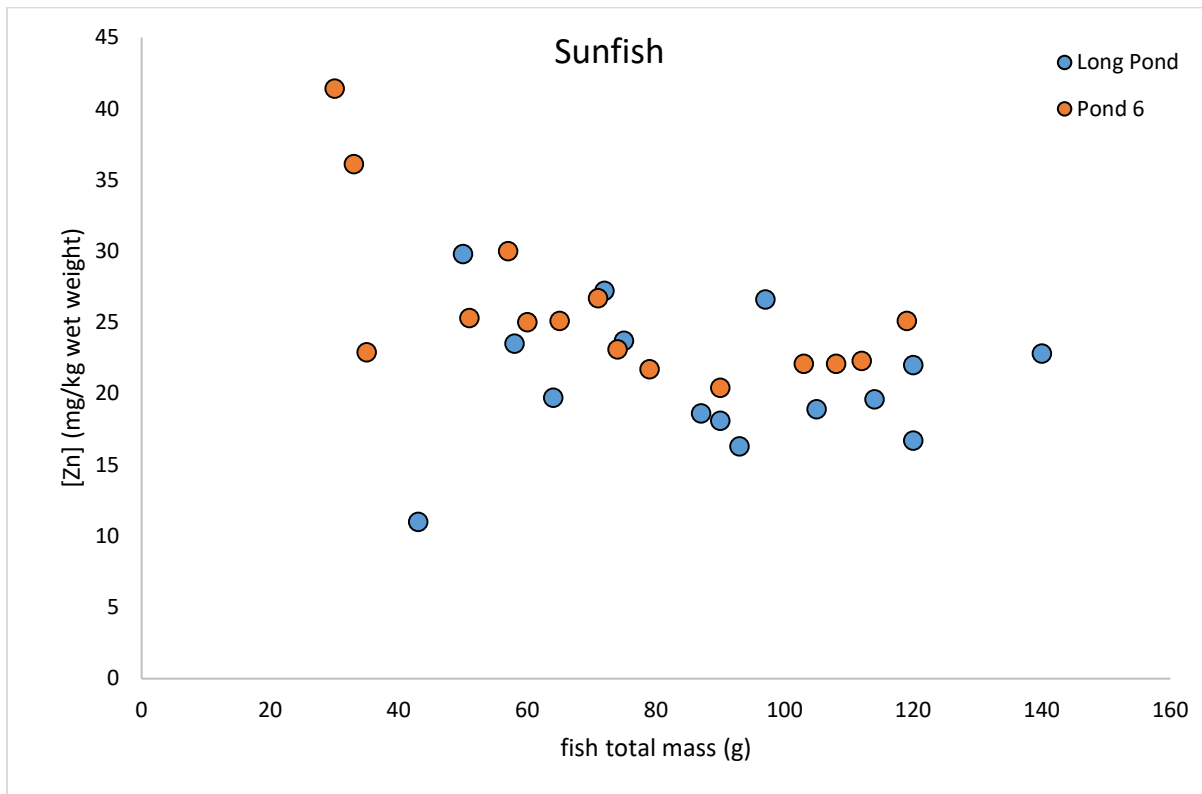


Figure 20. Zinc concentrations in the livers of sunfish from Pond 6 and Long Pond.

Table 56. Zinc mg/kg in sunfish livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	21.0	15	4.8	11.0	29.8
Pond6	26.0	15	5.8	20.4	41.4

The maximum hepatic Zn concentration in BEN was observed in a large common carp from Long Pond (Fig. 21). With this fish included, the mean Zn concentration though not significantly greater in fish from Long Pond (Table 57; $U_{4,15} = 26$, $P = 0.69$). With this value excluded, the mean (28.9 mg/kg) Zn concentration in BEN from Long Pond was less than that in fish from Pond 6, though not significantly so ($U_{3,15} = 11.0$, $P = 0.17$). The mean Zn

concentrations in BEN increased slightly from the south to north pools (Fig. 19). Zinc concentrations in the livers of BEN were more highly variable than in SUN or LMB.

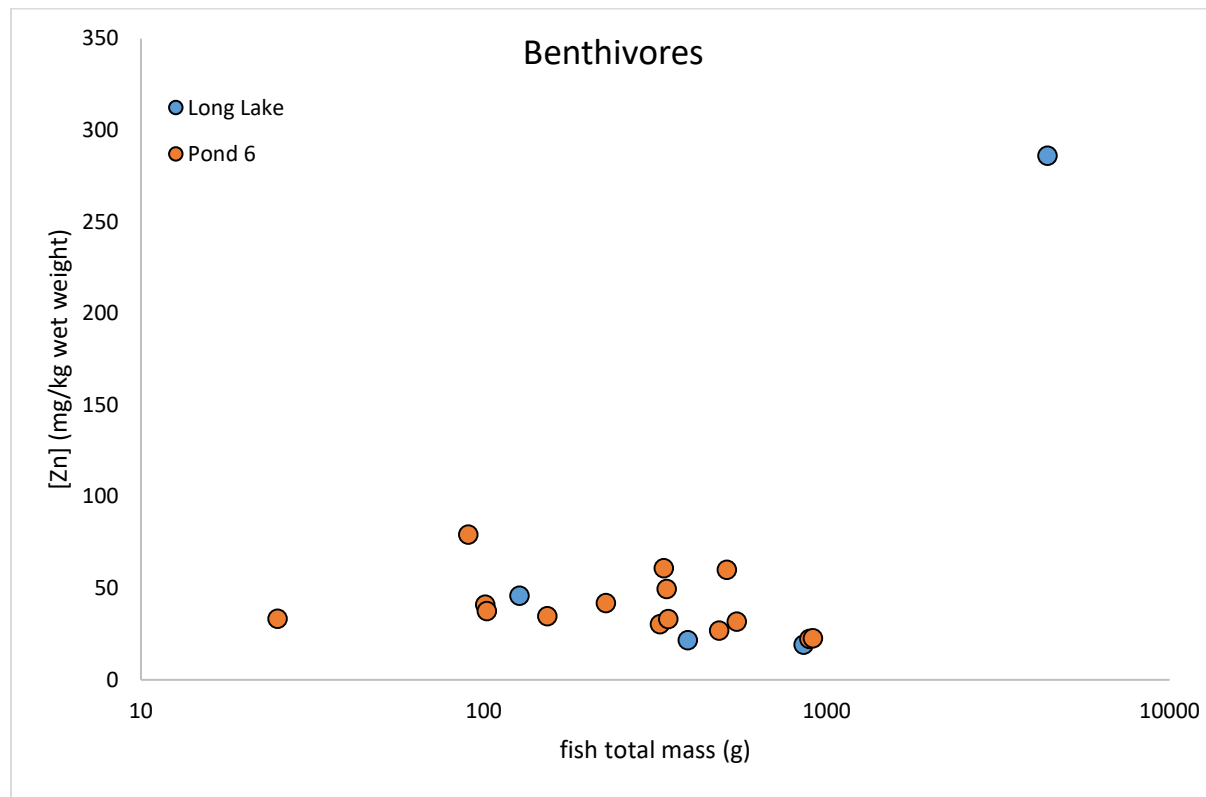


Fig. 21. Zinc concentrations in livers of benthivores from Pond 6 and Long Pond. The x-axis is presented on a logarithmic scale to accommodate the large size of the common carp from Long Pond.

Table 57. Zinc mg/kg in benthivore livers.

Pond	Mean	N	Std. Deviation	Minimum	Maximum
LongPd	93.2	4	129.1	19.2	286.0*
Pond6	40.3	15	15.9	22.2	79.2

*observed in a large (4.4 kg) common carp

Discussion

Examination of a summary table of results revealed a pattern where some elements, e.g., B, Mn and Sr, were elevated in abiotic compartments in Long Pond relative to Pond 6. These did not

translate to greater exposure in biota. Two biotic components in Long Pond had greater concentrations (snails) and detection rate (bass) of As in spite of similar concentrations measured in water and sediments, as compared to Pond 6.

Cadmium, Co, Hg, Pb and Zn were elevated or had notably greater numbers of detections in one or more environmental compartments in both ponds. Barium, Cd, Hg, Pb, Se, V and Zn were elevated or had notably greater numbers of detections in two or more compartments at Pond 6; with the exception of Pb, in each instance these elements were greatly enriched in nodules collected from the delta of Pond 6.

The observed patterns of for Se and V, and to a lesser extent Cd, Pb and Tl, at Pond 6 suggested food chain transfer. With the exception of As, all detectable elements in odonates, ie Cd, Pb, Tl, Se, V and Zn, were also greatly enriched (≥ 6 -fold) in nodules, and were present in notably greater mean concentrations in the middle v south pool of Pond 6. This suggests that the presence of fly ash nodules in the delta area of Pond 6 may be causing increased exposures of odonate larvae to these elements. Similarly, concentrations of Cd, Pb, Se Tl, V and Zn were elevated in snails from the middle pool, when compared to those collected from the north pool (no snails were collected from the south pool). In addition, the detection rates for Cr, Se, Tl, and V in odonates and V in snails were notably greater in samples collected from the middle pool, as opposed to the north or south pools, of Pond 6.

Some elements were present in fish livers at greater concentrations in samples from Long Pond, whereas others had few detections in either pond or varied little between ponds. In some cases species varied in their relationship between ponds; for example, Zn concentrations were greater in LMB from Long Pond, whereas they were greater in the livers of SUN from Pond 6. We surmise that differences in ecologies of the fish coupled with lake chemistry and location of

an element produced these patterns. For example, an essential element complexed with organic material will more available to sediment dwelling invertebrates and their consumers than to higher level consumers, e.g., largely-piscivorous predators.

Some elements had greater availability across taxa at Pond 6. Selenium was present in greater mean concentrations in all 3 fish taxa from Pond 6. This element was also present at greater concentrations and detection rates in snails and odonates from Pond 6. Similarly, odonates from Pond 6 had greater V detection rates and a 94% greater maximum concentration than did those from Long Pond. Vanadium was also detected at a much greater rate in LMB and a 72% greater (though not significantly) mean concentration in SUN at Pond 6. Interestingly Hg was present in greater concentrations in invertebrates and BEN fillets though not the more predatory SUN and LMB from Pond 6. This could indicate greater availability of an inorganic form that is not being rapidly methylated and biomagnifying in the food chain there.

Comparisons of elements in fish between pools must be viewed with caution, as fish can move between pools, particularly during high flow periods when the Vermilion River enters Pond 6. We think it unlikely that fish move between pools during normal flow, though it is possible. Regardless, we feel it noteworthy that the mean concentrations of 4 elements were notably greater in the livers of BEN, those species most closely associated with sediments, collected from the middle pool. These included Cd, Hg, Se and Pb; Cd, Se and Pb were also elevated in snails from the middle pool. In addition, the mean Cd and Se concentrations in odonates were greatest in samples from the middle pool, and Cd and Zn were greatest in SUN, and V in LMB, from the middle pool.

Mercury concentrations in LMB fillets from both lakes fell within sportfish consumption advisory meal restriction categories for sensitive cohorts (pregnant/nursing women, women of

childbearing age, and children. Currently, Illinois has in place a statewide methylmercury advisory of no more than 1 meal/week (some waters may be more or less restrictive) of predatory fish for this cohort. A greater number of fillets from Long Pond fell within the 1 meal/month consumption category, than did those from Pond 6. It is important to remember that most consumption advisories are based on concentrations in composite samples. Whereas this lessens the impact of a single high value, it does provide a more conservative approach to risk assessment.

Mercury concentrations in all but three fish were below the USEPA screening value for recreational fishers (400 ng/g). According to USEPA's risk-based consumption limit for non-cancer endpoints, methylmercury concentrations of > 30.0 ng/g would result in some recommended consumption limits; all of the LMB fillets in our sample would fall above this guideline.

Mercury concentrations in fillets were similar between lakes, thus it does not appear that more-restrictive guidelines would be needed for Pond 6, as compared to Long Pond. However, the large percentages of LMB with values in the 1 meal/month category and SUN within any meal restriction category may indicate that further consideration of consumption guidelines for fish from strip-mined lakes/ponds may be needed. Further consideration of this issue is beyond the scope of this discussion.

Part III. Summary of Results

The table below summarizes the results of analyses of water, sediment and biota collected in this study. The columns to the right of each element represent the various media analyzed for those elements. Cells labeled with “L” and colored orange signify that Long Pond had higher concentrations or rates of detection for a particular element/media pair, and cells labeled with “6” and colored green signify that Pond 6 had higher concentrations or rates of detection for a particular element/media combination. The key accompanying the table what the various label/color combinations represent.

Element	Water	Sediment	Snails	Odonates	LMB liver	SUN Liver	BEN Liver	BEN Fillet	LMB Fillet	SUN Fillet
As			L		L					
B	L									
Cu	6									
Mn		L								
Sr	L	L								
Co				6	L					
Hg			6	6		L		6		
Zn		6			L	6				
Pb	6	6	L	6		6				
Cd		6	L		6	6				
Be		6								
Sb		6								
Mo	6									
Cr				6						
Ba	6	6								
Tl				6		6				
V	6	6		6	6					
Se	6		6	6	6	6	6			

L	= significantly (=statistically) higher at Long Pond
L	= higher rate of detection at Long Pond
6	= significantly higher at Pond 6
6	= higher rate of detection at Pond 6
[]	= [] in nodule at least 1 order of magnitude greater than in LL sed.
	= not examined
	= not different

Most of the significant enrichments or higher detection rates occur in Pond 6. In fact, for those elements with enrichment factors (fly ash nodule concentration/Long Pond sediment

concentration) greater than 10, e.g., antimony (Sb), beryllium (Be), thallium (Tl) and vanadium (V), enrichment in one or more media is exclusively confined to Pond 6. Additionally, for elements where 4 or more media show enrichment (either through significantly different mean concentrations or substantially more frequent detections), that is lead (Pb), vanadium (V), and selenium (Se), enrichment factors (fly ash nodule concentration/Long Pond sediment concentration) are 6.3, 12.1, and 8.1, respectively. This leads us to the overall conclusion that a signature of elevated concentrations of fly ash-associated elements is present in Pond 6 (relative to the reference, Long Lake). However, the element concentrations responsible for that signature do not exceed Illinois regulatory limits or other published toxicity thresholds.

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- Machesky, M.L. and J.A. Slowikowski. 2013. Confirmation of the presence of Fly Ash in Pond 6, Kickapoo State Park. Draft Letter Report to IL DNR.

APPENDIX A

Confirmation of the presence of Fly Ash in Pond 6, Kickapoo State Park

Draft Letter Report

M.L. Machesky and J. A. Slowikowski

Study Summary

This study effort provided the field samples and laboratory analyses necessary to determine and document that fly ash materials are indeed being transported and deposited onto Kickapoo State Park. Efforts consisted of a single field trip to Pond Six where 7 samples of the deposited material were taken from Pond 6 and the stream which drains the fly ash disposal area and analyzed. Slowikowski and Machesky walked up the stream to the headwaters collecting samples and visually reconnoitering the fly ash disposal area and the current condition of the disposal area cap.

Collected samples were prepared and sent to Actlabs for analysis to determine the chemical composition. In addition, several samples were taken to the Materials Research Laboratory (MRL) at the University of Illinois where a scanning electron microscope (SEM) was used to image the particle morphologies of the fly ash containing samples.

Field Trip

The field trip to Pond 6 occurred on July 5th, 2013. The purpose of the sampling trip was to collect deposited material from both Pond 6 and the stream draining into Pond 6 upstream to and including the fly ash disposal area for later chemical and microscopic analyses to confirm the presence and composition of fly ash and associated deposited material. In addition, we visually reconnoitered the fly ash disposal area and the current condition of the disposal area cap. GPS coordinates and pictures were taken at each sampling location.

The site visit took place between 9:30 and 14:00 CST. Weather was partly cloudy, humid, and temperature near 80 F. Flow in the stream draining into Pond 6 was estimated at 0.3-0.4 CFS. Figure 1 below is a satellite image taken on 9/22/2013 and containing the sampling locations as determined via hand-held GPS. Note that the fly ash disposal area cap is clearly visible. Table 1 below gives the station designations, times sampled, GPS coordinates, and a brief description of the samples taken at each location.

Samples 4S and 10S were exclusively fly ash with 4S from the fly ash disposal area and 10S from the Pond 6 delta. Samples 8S and 9S were Ponar dredge samples with 8S taken from the Pond 6 delta and 9S taken from the southern part of Pond 6 not obviously impacted by the stream drainage. Attempts to obtain a ponar dredge sample near the northern outfall of Pond 6 were unsuccessful. Hence sample 11S was obtained immediately south of the pedestrian bridge over the Pond 6 outfall. Sample 3S was taken immediately below the fly ash disposal cap and not in the stream channel itself, as was sample 1S which was taken from a side overflow channel. The remaining samples (2S, 5S, 6S, 7S) were taken from the main stream channel.

The disposal area cap was obviously new (< 14 months old) with the newly planted grasses beginning to take hold (Figure 2 below). However, obvious signs of cap erosion and exposed fly ash were already visible as evidenced by photographs taken of impacted cap areas (Figures 3a-c below).

Fly ash nodules were also clearly visible in the stream draining the ash disposal site (Figures 4a-b below), and in the delta formed where the stream flows into Pond 6 (Figure 5 below). However, it is important to note that the majority of the delta is composed of sand and not fly ash nodules.

Fly ash morphology

Fly ash nodules ranged in size from barely visible to several inches in diameter and were predominantly dark grey when wet. After drying the nodules were lighter grey and rather easily crushed into granular powder (Figure 6 below). SEM (scanning electron microscope) micrographs of the crushed fly ash sample 4s (collected at the disposal site) at lower and higher magnifications are presented in Figure 7 top and bottom, respectively. The observed angular morphology is characteristic of fly ash produced in Circulating Fluidized Bed (CFB) coal combustion boilers, which operate at lower temperatures (~850 °C) then do pulverized coal boilers (~1400 °C). Consequently, there is less melting of the ash and hence angular, rather than rounded and glassy morphologies predominate. This agrees with tabular data downloaded from the IEPA website that lists the boilers at Bunge Graining Milling, Inc. in Danville (the source of the fly ash) as being of the CFB type. An SEM micrograph of the fly ash sample collected from the Pond 6 delta exhibits similar angular morphology (Figure 8).

Stream sediment samples 2s and 8s were also examined under the SEM in the attempt to image fly ash in the stream sediments themselves at the microscopic level. Given the limited sample used, and the small field of view, and the generally similar morphologies of the fly ash and native stream sediments, this proved difficult to do. However, Figure 9 is a micrograph of stream sediment sample 8s in which a fly ash particle roughly 20 microns in diameter is clearly visible near the center of the micrograph. This demonstrates that microscopic as well as visible fly ash particles are present.

Fly ash and sediment chemistry

Chemical results, as obtained from samples sent to Activation Laboratories, Ltd are summarized in Table 2. Note that for several elements, for example barium (Ba), 2 values are given since the different “analysis packages” chosen include some of the same elements. Also note that some of the values are highlighted in red text and those receive special mention below. Finally, Table 3 contains concentration ranges found in Illinois stream sediments for several elements, as obtained from 2 different sources. These values help provide some perspective as to how the observed concentrations for those elements compare to those found in stream sediments from across the State.

LOI is short for “Loss on Ignition”. The Actlabs LOI temperature is 1050°C for 2 hours, which is higher than typical CFB boiler temperatures (~850 °C). This helps account for the observed LOI values which were near 30% for fly ash samples 4s and 10s, a considerable fraction of the total. The observed LOI values probably reflect decomposition of carbonate phases, in addition to unburned organic matter. A large carbonate phase contribution is supported by the much lower corresponding organic carbon contents of 4s and 10s (1.8 and 1.4 %, respectively). In any case, LOI values for fly ash samples from CFB boilers can sometimes approach 30% because of the relatively low combustion temperatures.

Several potentially toxic elements were present at rather high concentrations in the fly ash samples 4s and 10s. Nonetheless, the concentrations are within ranges typical for fly ash. These elements include beryllium (Be), vanadium (V), cadmium (Cd), lead (Pb), nickel (Ni), zinc (Zn), arsenic (As), antimony (Sb), and selenium (Se). Of these, As, Sb, and Se are potentially the most mobile or leachable at the neutral to slightly basic pH values (pH 7-9) most likely predominant in Pond 6. However, in order to determine if these or the other potentially toxic elements are being mobilized from the fly ash particles would require additional sampling and analyses of sediments and water from the stream draining the disposal site, as well as in Pond 6 and downstream waters.

The data in Table 3 are presented as median and mean concentration values for the given elements as calculated from the data sets used, as well as those concentrations equal to and exceeding the 85th and 98th percentiles of all the concentrations in the data sets utilized. These percentiles were used by Short (1997) to delineate between non-elevated (\leq the 85th percentile), elevated ($>$ the 85th percentile and $<$ the 98th percentile), and highly-elevated (\geq the 98th percentile) concentrations in Illinois stream sediments. Note that the highly elevated concentrations are higher in the data set assembled by Short (1997) than those in the USGS data set for the same elements. For example, the highly elevated Pb concentration boundary is 66.6 ppm in the USGS data set and 245 ppm in the Short (1997) data set. Conversely, the respective median values, with the exception of those for Hg, are much more similar. These differences likely reflect that the Legacy STORET data set assembled by Short (1997) contains more values from sediments impacted by anthropogenic pollution, such as from the Chicago area. In any case, the data set differences reinforce that designations such as “non-elevated” or “highly-elevated” are data set dependent.

Because the USGS data set appears to be not overly populated by values from polluted areas, it is deemed a better choice to provide some perspective for the chemical data from this study. Selenium concentrations were highly-elevated in both fly ash samples and also in the sediment collected at the pond 6 outlet (11s). Arsenic was highly-elevated in the dump site fly ash sample (4s). Lead and zinc were highly-elevated in both fly ash samples.

Summary

Fly ash is present in Pond 6, and in the stream draining the fly ash disposal area which is the source of the fly ash. The disposal area has been recently capped, and that cap has likely reduced the transport of fly ash down the stream and into Pond 6. However, the cap is already showing obvious signs of erosion, and fly ash is once again exposed in some areas.

The morphology and chemical composition of the fly ash is consistent with its genesis in CFB boilers. Concentrations of potentially toxic elements such as arsenic, selenium, lead and zinc are highly-elevated in the fly ash samples themselves, with respect to Illinois stream sediments, which is not surprising. Most of the bulk stream and Pond 6 sediments collected were not highly elevated in those same elements, even though they likely contained some fly ash. However, although our field trip and the physical and chemical solid-phase characterizations summarized above have proved that fly ash from the disposal area has been transported down to Pond 6, potential ecological and downstream impacts are unknown and would require additional investigation.

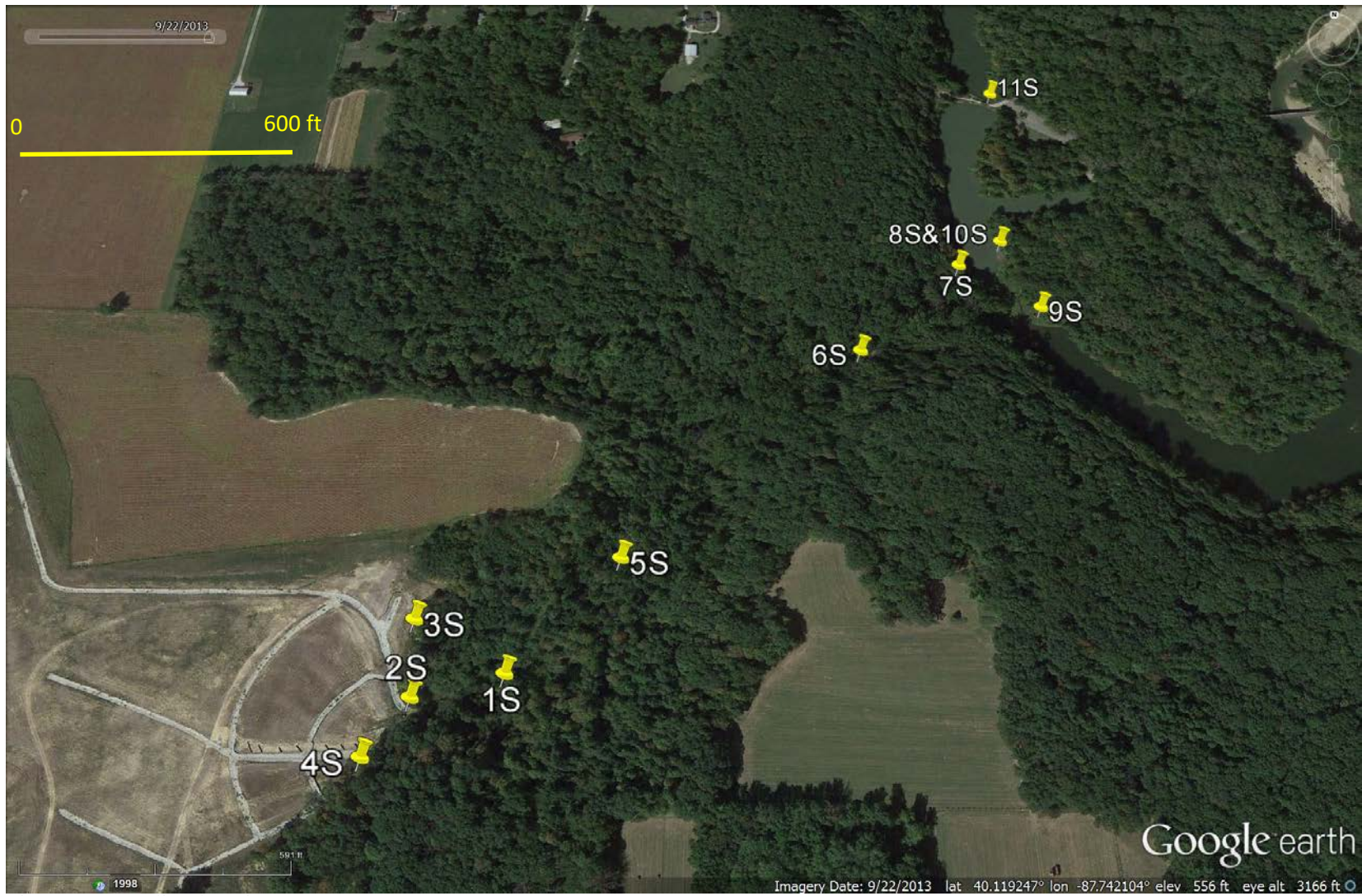


Figure 1. Sampling locations map.

Table 1. Sampling stations, times sampled, GPS coordinates, and brief descriptions of samples taken.

Station	time CST (7/5/13)	N decimal degrees	W decimal degrees	Description
1S	10:40	40.11742	87.74360	side channel about 40 feet from main channel
2S	10:50	40.11725	87.74435	fine sediments taken from pool 10 feet below main culvert draining capped fly ash disposal site
3S	11:15	40.11773	87.74437	North bottom edge of waste pile
4S	11:35	40.11687	87.74468	South edge of waste pile. Broke open and sampled 8 inch diameter fly ash chunk
5S	12:07	40.11822	87.74268	stream bank fines from a few cm deep. Black and rotten smell
6S	12:32	40.12003	87.74043	stream bank sample
7S	12:40	40.12087	87.73935	stream bed sample taken at big bend just upstream of delta
8S	12:47	40.12115	87.73887	Stream delta ponar sample
9S	1:00	40.12048	87.73857	ponar sample from pond 6 above delta and istmus
10S	1:07	40.12115	87.73887	Station 8S (delta) nodule samples
11S	1:40	40.12287	87.73870	Pond 6 downstream outfall.



Figure 2. General view of the fly-ash disposal site cap on 7/5/2013. View is to the WNW.



Figure 3a. Erosion impacted area on the SE side of the cap.



Figure 3b. Erosion impacted area on the southern flank of the cap.



Figure 3c. Erosion impacted area on the southern flank of the cap with fly ash nodules clearly visible.



Figure 4 (a&b). Areas containing visible fly ash nodules observed along the stream draining into Pond 6.



Figure 5. Close-up of fly ash nodules in the Pond 6 stream delta. The largest nodules are a few cm across.



Figure 6. Close-up of a dried and partially crushed fly ash nodule. The larger nodule is about 2 cm across.

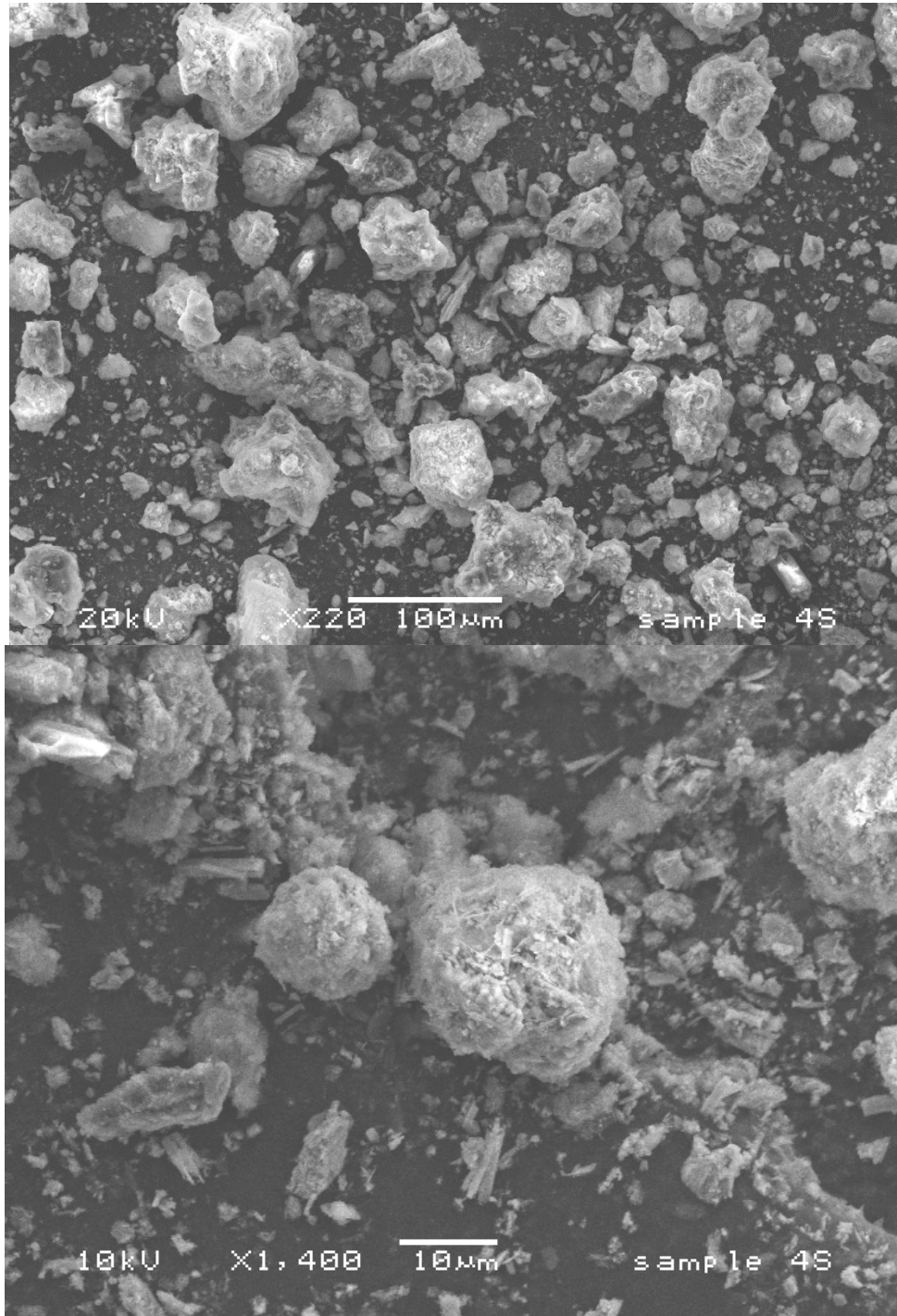
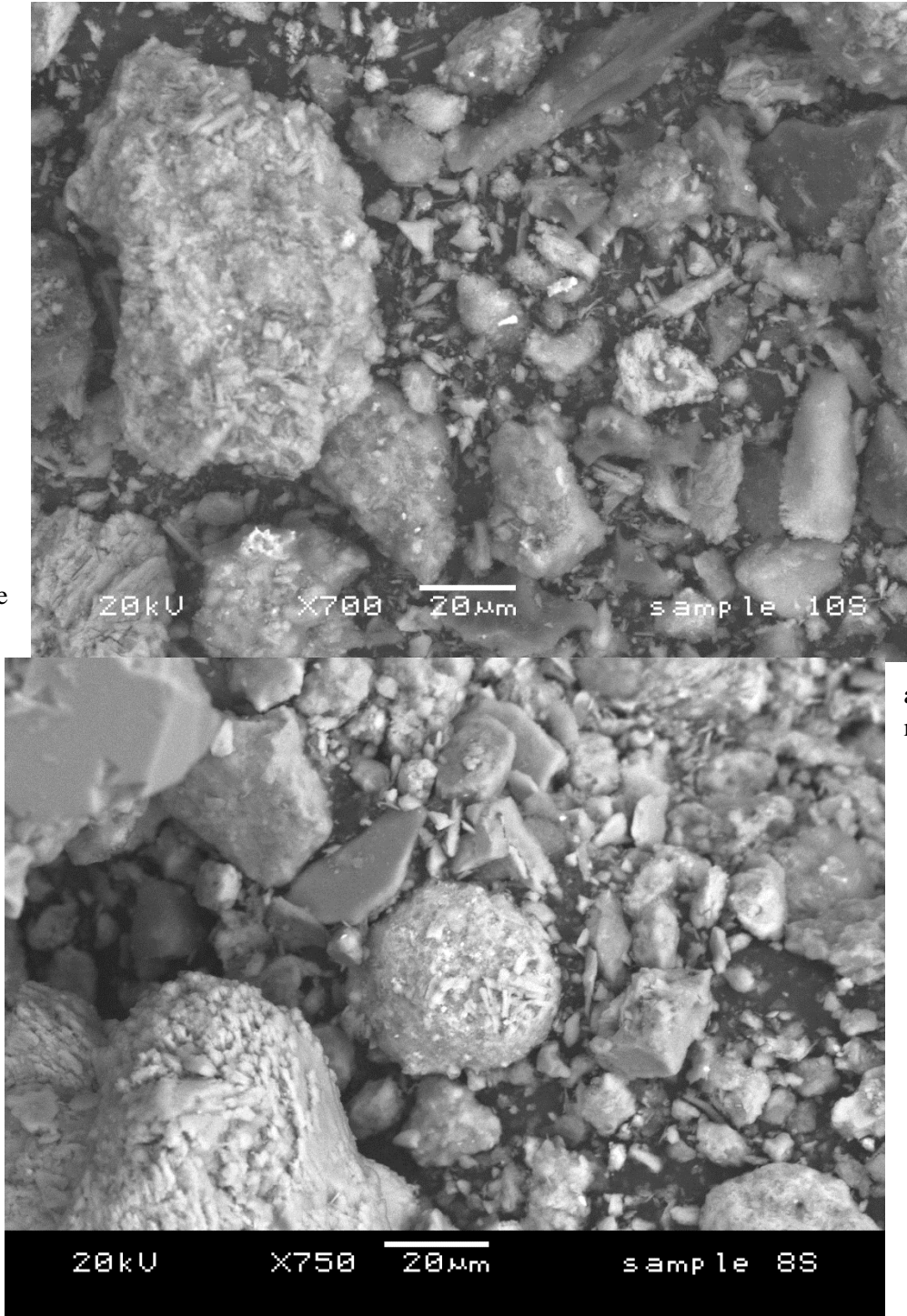


Figure 7. SEM micrograph of sample 4s fly ash. Top at x220 magnification. Bottom at x1400 magnification.

Figure
of
fly



8. SEM
micrograph
sample 10s
ash at x700
magnification.

Figure 9. SEM micrograph of sample 8s stream sediment at x750 magnification with rounded fly particle at center of image.

Table 2. Actlabs Chemical Analyses. Values in red are especially significant and are discussed in the text.

Analyte Symbol	Unit Symbol	Detection Limit	Analysis Method	4S (fly ash from dump site)	10S (fly ash from stream delta)	2S (stream sediment)	6S (stream sediment)	8S (pond 6 sediment from stream delta)	11S (pond 6 sediment at pond outlet)	9S(pond 6 sediment not impacted by fly ash-background site)
SiO2	%	0.01	FUS-ICP	19.66	28.29					
Al2O3	%	0.01	FUS-ICP	8.84	12.51					
Fe2O3(T)	%	0.01	FUS-ICP	4.55	3.84					
MnO	%	0.001	FUS-ICP	0.034	0.046					
MgO	%	0.01	FUS-ICP	1.05	1.14					
CaO	%	0.01	FUS-ICP	25.83	18.51					
Na2O	%	0.01	FUS-ICP	0.25	0.54					
K2O	%	0.01	FUS-ICP	0.58	1.25					
TiO2	%	0.001	FUS-ICP	0.434	0.582					
P2O5	%	0.01	FUS-ICP	0.08	0.08					
LOI	%		FUS-ICP	30.04	28.58					
Total	%	0.01	FUS-ICP	91.35	95.37					
C-Organic(calc)	%	0.05	IR	1.84	1.43	0.37	0.87	0.08		1.6
Ba	ppm	2	FUS-ICP	465	902					
Ba	ppm	1	MULT INAA/TD- ICP-	446	145	394	388	300	301	329
Sr	ppm	2	FUS-ICP	259	197					
Sr	ppm	0.2	TD-MS	256	187	131	126	107	146	161
Y	ppm	1	FUS-ICP	20	22					
Y	ppm	0.1	TD-MS	14.4	14.9	17	14.3	10	13.6	11
Sc	ppm	1	FUS-ICP	11	14					
Sc	ppm	0.1	INAA	10	13.2	7.4	6.5	4	6.4	3.8
Zr	ppm	2	FUS-ICP	75	98					
Zr	ppm	1	TD-MS	62	79	109	68	22	72	77
Be	ppm	1	FUS-ICP	8	9					
Be	ppm	0.1	MULT TD- ICP/TD-ICP-MS	7.8	9.7	1.5	1.7	1.1	1.4	0.8
V	ppm	5	FUS-ICP	391	354					
V	ppm	2	TD-ICP	367	347	60	58	39	61	33
Au	ppb	2	INAA	< 2	< 2	< 2	< 2	< 2	6	< 2
Ag	ppm	0.05	MULT INAA/TD-	0.37	0.47	0.24	0.19	0.14	0.26	0.24
Cu	ppm	0.2	MULT TD- ICP/TD-ICP-MS	38.8	47.2	19.6	17.7	12.4	26.2	16.6
Cd	ppm	0.1	MULT TD- ICP/TD-ICP-MS	1.4	1.8	0.2	0.2	0.1	0.3	0.1
Mo	ppm	1	TD-ICP	15	13	< 1	< 1	3	1	1
Pb	ppm	0.5	MULT TD- ICP/TD-ICP-MS	89.6	103	24.5	27.2	19	17.5	13.7
Ni	ppm	0.5	MULT INAA/TD-	199	197	36	36.1	20.7	29.5	18.7
Zn	ppm	0.5	MULT INAA/TD-	396	531	91.2	131	70.4	81.3	45.6
S	%	0.01	TD-ICP	1.65	2.69	0.14	0.1	0.05	0.28	0.52
Al	%	0.01	TD-ICP	4.55	6.69	4.23	4.11	3.09	4.21	3.08
As	ppm	0.5	INAA	28.8	10.5	9.8	9.8	7.2	7.7	4.3
Bi	ppm	0.1	MULT TD- ICP/TD-ICP-MS	0.2	0.2	0.2	0.2	0.1	0.2	0.1
Br	ppm	0.5	INAA	8.8	8.4	4.2	< 0.5	< 0.5	14.5	7.2
Ca	%	0.01	TD-ICP	14.2	11.7	5.95	4.36	2.76	8.46	7.32
Co	ppm	0.1	MULT INAA/TD- ICP-	22	27.6	11.2	10.2	7.4	8.8	6.3
Cr	ppm	1	MULT INAA/TD- ICP-	64	85	43	47	29	43	28
Cs	ppm	0.05	MULT INAA/TD- ICP-	3.27	6.02	3.08	3.01	1.65	3.61	1.49

Table 2 continued. Actlabs chemical analyses. Values in red are especially significant and are discussed in the text.

Analyte Symbol	Unit Symbol	Detection Limit	Analysis Method	4S (fly ash from dump site)	10S (fly ash from stream delta)	2S (stream sediment)	6S (stream sediment)	8S (pond 6 sediment from stream delta)	11S (pond 6 sediment at pond outlet)	9S(pond 6 sediment not impacted by fly ash-background site)
Fe	%	0.01	INAA	3.46	2.86	2.3	2.41	1.87	2.88	1.83
Hf	ppm	0.1	TD-MS	1.6	2.2	2.3	1.7	0.6	1.8	2
Hf	ppm	1	INAA	2	3	6	4	3	3	4
Ga	ppm	0.1	TD-MS	13.8	19.7	8.4	7.4	5.6	8.9	5.5
Ge	ppm	0.1	TD-MS	4.3	5.4	0.3	1.5	0.3	0.2	<0.1
Hg	ppb	10	TD-MS	100	90	20	140	140	130	20
In	ppm	0.1	TD-MS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ir	ppb	5	INAA	<5	<5	<5	<5	<5	<5	<5
K	%	0.01	TD-ICP	0.48	1.07	1.92	1.65	1.21	1.57	1.31
Li	ppm	0.5	TD-MS	78.5	84.7	29.3	29.9	21.3	29	16.6
Mg	%	0.01	TD-ICP	0.65	0.72	2.06	1.19	0.83	1.33	0.85
Mn	ppm	1	TD-ICP	257	351	629	689	476	1000	418
Na	%	0.01	INAA	0.19	0.42	0.65	0.68	0.68	0.48	0.64
Nb	ppm	0.1	TD-MS	9	12.1	4.7	2.8	2.4	6.5	5.4
P	%	0.001	TD-ICP	0.027	0.034	0.029	0.033	0.024	0.065	0.034
Rb	ppm	0.2	MULT INAA/TD- ICP-	38.1	83.9	67	64.4	45.1	68.7	48
Re	ppm	0.001	TD-MS	0.024	0.025	0.002	0.002	0.004	0.007	0.003
Sb	ppm	0.1	INAA	6.7	11.2	1.1	1.3	0.6	0.9	0.4
Se	ppm	0.1	MULT INAA/TD- ICP-	4.2	4.3	0.7	0.7	0.3	1.4	0.4
Sn	ppm	1	TD-MS	2	2	1	<1	<1	1	1
Ta	ppm	0.1	MULT INAA/TD- ICP-	0.5	0.7	0.2	0.1	0.1	0.3	0.3
Te	ppm	0.1	TD-MS	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ti	%	0.01	TD-ICP	0.27	0.38	0.3	0.23	0.16	0.24	0.2
Th	ppm	0.1	MULT INAA/TD- ICP-	11.3	17.4	81.5	9.4	5.8	9.9	65.9
Tl	ppm	0.05	TD-MS	1.26	1.07	0.54	0.45	0.27	0.42	0.35
U	ppm	0.1	MULT INAA/TD- ICP-	3.3	4	9	1.7	1	1.4	6.5
W	ppm	1	INAA	<1	<1	<1	<1	<1	<1	<1
La	ppm	0.1	TD-MS	29.5	29.2	23.6	22.5	15.3	19.6	15.6
La	ppm	0.5	INAA	41.6	43.2	29.8	27.2	19	24.3	19
Ce	ppm	0.1	TD-MS	48.7	51.8	48.8	45.8	31.2	39.1	30.8
Ce	ppm	3	INAA	69	73	53	51	38	44	40
Pr	ppm	0.1	TD-MS	5.4	6.1	5.9	5.5	3.8	4.7	3.8
Nd	ppm	0.1	TD-MS	18.4	20.7	21.3	19.5	13.6	16.5	13.6
Nd	ppm	5	INAA	41	40	19	18	24	24	11
Sm	ppm	0.1	TD-MS	3	3.4	4	3.5	2.6	3	2.5
Sm	ppm	0.1	INAA	4.4	5.2	5.2	4.6	3.1	3.2	2.6
Eu	ppm	0.05	TD-MS	0.63	0.73	0.88	0.79	0.55	0.69	0.56
Eu	ppm	0.2	INAA	0.8	0.9	1	0.7	0.5	0.7	0.8
Gd	ppm	0.1	TD-MS	2.6	2.9	3.7	3.1	2.3	2.8	2.3
Dy	ppm	0.1	TD-MS	2.2	2.5	3.2	2.8	1.9	2.5	2
Tb	ppm	0.1	TD-MS	0.4	0.4	0.5	0.5	0.3	0.4	0.3
Tb	ppm	0.5	INAA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ho	ppm	0.1	TD-MS	0.5	0.5	0.6	0.5	0.4	0.5	0.4
Er	ppm	0.1	TD-MS	1.3	1.5	1.8	1.6	1.1	1.4	1.1
Tm	ppm	0.1	TD-MS	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Yb	ppm	0.1	TD-MS	1.3	1.5	1.7	1.5	1	1.4	1.1
Yb	ppm	0.2	INAA	2.1	2.6	2.4	2	1.1	1.6	1.3
Lu	ppm	0.1	TD-MS	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Lu	ppm	0.05	INAA	<0.05	0.05	<0.05	0.1	<0.05	<0.05	0.09

Table 3. Illinois stream sediment data ranges for some potentially toxic elements from the USGS (top) and Short (1997) bottom.

USGS National Geochemical Survey	As	Hg	Pb	Zn	Cu	Se				
Illinois stream sediment data	ppm	ppb	ppm	ppm	ppm	ppm				
http://tin.er.usgs.gov/geochem/										
Mean	8.3	49.9	25.7	65.7	15.4	0.4				
Median	8.0	20.0	21.0	51.7	12.1	0.3				
≥ 85th percentile	10.7	44.0	29.9	75.6	18.0	0.6				
≥ 98th percentile	14.7	313.0	66.6	214.7	48.6	0.8				
Short, 1997	As	Hg	Pb	Zn	Cu		Ba	Ni	Cr	Cd
Illinois stream sediment data	ppm	ppb	ppm	ppm	ppm		ppm	ppm	ppm	ppm
1980-1995 from legacy STORET database										
Mean	5.8	215.0	42.0	166.0	28.7		119.7	19.0	26.3	2.3
Median	5.0	100.0	17.0	76.0	15.1		114.0	17.0	18.0	1.0
non-elevated (< 85th percentile)	< 7.2	< 280	< 60	< 170	< 37		< 145	< 26	< 37	< 2.0
elevated (85th to 98th percentile)	≥ 7.2	≥ 280	> 60	≥ 170	≥ 37		> 145	≥ 26	≥ 37	≥ 2.0
highly elevated (≥ 98th percentile)	> 18	≥ 1400	≥ 245	≥ 760	≥ 170		≥ 230	≥ 45	≥ 110	≥ 9.3

APPENDIX B

Sample numbers, dates and times sampled, sample locations, depths, and GPS coordinates for water samples (top), and sediment samples (bottom). The Lab/COC sample numbers can be used to pair the analytical results provided in Appendix D below with a particular sample.

Lab/COC sample number	Date	Time (CST)	Location	total depth (ft)	Sample Depth (ft)	GPS Coordinates	Notes
Water							
LP2T	8/3/2016	8:15	Long Pond Bkg#2	8	1	40.12981,-87.73204	
LP2B	8/3/2016	8:20	Long Pond Bkg#2	8	7.5	40.12981,-87.73204	
LP4T	8/3/2016	8:45	Long Pond Bkg#4	18.2	1	40.13253,-87.73623	
LP4B	8/3/2016	8:50	Long Pond Bkg#4	18.2	17.5	40.13253,-87.73623	
LP3T	8/3/2016	9:15	Long Pond Bkg#3	18.5	1	40.13278,-87.73566	
LP3B	8/3/2016	9:20	Long Pond Bkg#3	18.5	17	40.13278,-87.73566	
LP1T	8/3/2016	9:40	Long Pond Bkg#1	14.2	1	40.13440,-87.74376	
LP1T2	8/3/2016	9:45	Long Pond Bkg#1	14.2	1	40.13440,-87.74376	Field DI water blank
LP1B	8/3/2016	9:53	Long Pond Bkg#1	14.2	13.5	40.13440,-87.74376	
LP1B2	8/3/2016	9:58	Long Pond Bkg#1	14.2	13.5	40.13440,-87.74376	Duplicate of LP1B
P61T	8/3/2016	11:25	Pond 6 South	14.6	1	40.11953,-87.73771	
P61B	8/3/2016	11:30	Pond 6 South	14.6	14	40.11953,-87.73771	
P62T	8/3/2016	12:25	Pond 6 Central #1	11.6	1	40.12137,-87.73906	
P62B	8/3/2016	12:30	Pond 6 Central #1	11.6	11	40.12137,-87.73906	
P63T	8/3/2016	12:50	Pond 6 Central #2	14.2	1	40.12201,-87.73911	
P63D	8/3/2016	12:53	Pond 6 Central #2	14.2	1	40.12201,-87.73911	Duplicate of P63T
P63B	8/3/2016	12:58	Pond 6 Central #2	14.2	13.5	40.12201,-87.73911	
P64T	8/3/2016	13:57	Pond 6 North	7	1	40.12492,-87.73840	
P64B	8/3/2016	14:02	Pond 6 North	7	6	40.12492,-87.73840	
P64B2	8/4/2016	15:30				NA	DI water through Van Dorn sampler
P61B2	8/4/2016	15:50				NA	Lab DI water
Sediment							
P6S1	8/3/2016	11:40	Pond 6 South	14.6	14.6	40.11953,-87.73771	
P6S2	8/3/2016	11:40	Pond 6 South	14.6	14.6	40.11953,-87.73771	
P6S3	8/3/2016	11:50	Coal seam	NA	NA	40.12005,-87.73531	Coal seam chunks
P6S4	8/3/2016	11:50	Coal seam	NA	NA	40.12005,-87.73532	Coal seam chunks
P6N5	8/3/2016	14:10	Pond 6 North	7	7	40.12492,-87.73840	
P6N6	8/3/2016	14:10	Pond 6 North	7	7	40.12492,-87.73840	
P6D7	8/4/2016	7:15	Pond 6 Delta	NA	NA	40.12089,-87.73902	Fly ash nodules from Delta
P6C8	8/4/2016	7:35	Pond 6 Central	11	11	40.12119,-87.73916	
P6C9	8/4/2016	7:35	Pond 6 Central	11	11	40.12119,-87.73916	approx. 100ft off delta
P6C10	8/4/2016	7:43	Pond 6 Central	12.2	12.2	40.12145,-87.73917	near 1st central basin water sample location
P6C11	8/4/2016	7:55	Pond 6 Central #2	14	14	40.12196,-87.73918	near 2nd central basin water sample location
P6C12	8/4/2016	7:55	Pond 6 Central #2	14	14	40.12196,-87.73918	near 2nd central basin water sample location
P6C13	8/4/2016	8:05	Pond 6 Central North	14.7	14.7	40.12272,-87.73893	Approx. 150 feet south of foot bridge
P6C14	8/4/2016	8:05	Pond 6 Central North	14.7	14.7	40.12272,-87.73893	Approx. 150 feet south of foot bridge
LP2B1	8/4/2016	9:10	Long Pond Bkg#2	8	8	40.12983,-87.73212	near Long Pond Bkg #2 site
LP4B1	8/4/2016	9:30	Long Pond Bkg#4	17.4	17.4	40.13240,-87.73616	near Long Pond Bkg #4 site
LP4B2	8/4/2016	9:30	Long Pond Bkg#4	17.4	17.4	40.13240,-87.73616	near Long Pond Bkg #4 site
LP3B1	8/4/2016	9:42	Long Pond bkg#3	19.8	19.8	40.13280,-87.73557	near Long Pond Bkg #3 site
LP1B1	8/4/2016	10:02	Long Pond bkg#1	15.3	15.3	40.13436,-87.74381	near Long Pond bkg#1 site

APPENDIX C

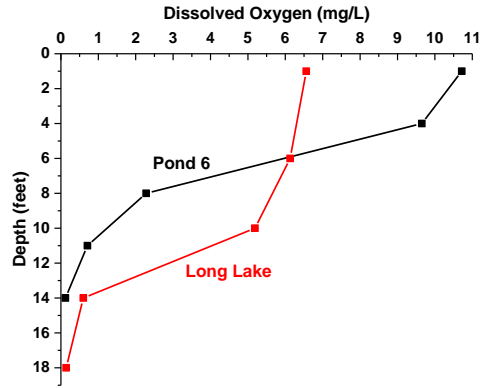
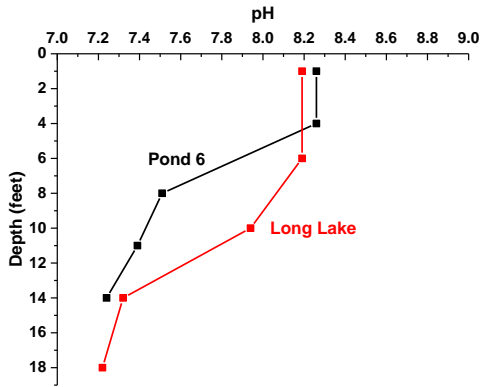
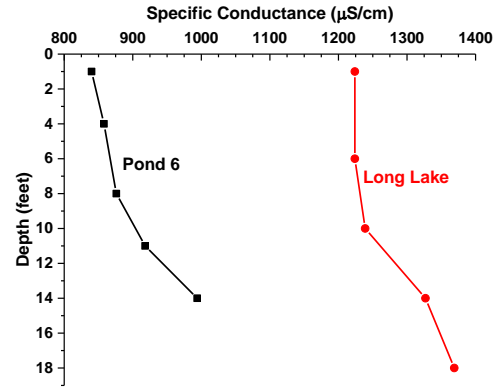
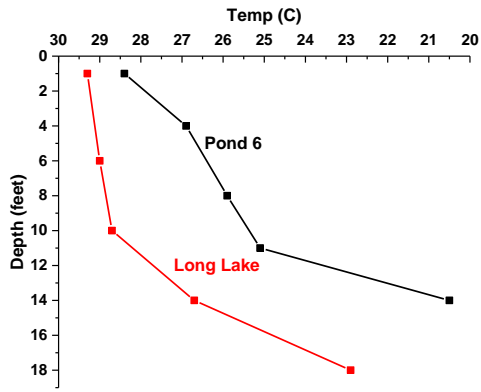
Water column sonde data 5/3/16

Station	location	Time (CST)	Total depth (ft)	Sample depth (ft)	Temp (°C)	SpCond (µmhos/cm)	pH	D.O. (%sat)	D.O. (mg/L)
Pond 6 #1	Center 3rd, approx 100 ft north of stream delta	9:12	8.9	3 ft below surface	14.1	861	7.62	92.4	9.45
Pond 6 #2	Center 3rd, west of inlet (N side)	9:26	12.9	3 ft below surface	14.5	860	7.9	94.6	9.74
		9:27		1 foot from bottom	12	1003	7.43	23	2.34
Pond 6, #3	Center 3rd, ~70 yds south of footbridge	9:35	15.2	3 ft below surface	14.2	855	7.89	90.1	9.32
		9:36		1 foot from bottom	9.7	1106	7.45	3.4	0.38
Pond 6, #4	Center 3rd, west of footbridge, ~50 ft from bank (no sediment collected)	9:50	8.5	3 ft below surface	14.4	857	7.86	94.5	9.63
		9:51		1 foot from bottom	13.1	901	7.65	53.7	5.57
Pond 6, #5	Southern 3rd, ~ 100 ft South of delta	10:16	4	2 ft below surface	15.7	882	7.89	93	9.31
Pond 6, #6	Southern 3rd, ~ 200 yds South of delta	10:21	15.3	3 ft below surface	16.2	885	7.81	91	8.86
		10:22		1 foot from bottom	9.5	914	7.32	3.2	0.36
Pond 6, #7	Southern 3rd, ~50 yds N of islands	10:34	15.1	3 ft below surface	15.1	886	7.79	86	8.53
		10:34		1 foot from bottom	13.5	896	7.45	14.3	1.49
Pond 6, #8	Northern 3rd, ~ 100 feet from stream outlet (no sediment collected)	11:42	5.8	2 ft below surface	15.9	894	11.4	103.5	10.6
		11:43		1 ft from bottom	15.2	892	11.13	90	8.98
Pond 6, #9	Northern 3rd, ~ 200 yds from stream outlet (no sediment collected)	11:49	7.3	2 ft below surface	15.9	882	9.53	112.5	11.14
		11:50		1 ft from bottom	14.9	885	9.64	90.4	9.23
Pond 6, #10	Northern 3rd, ~ 200 yds from footbridge (no sediment collected)	11:53	7.8	2 ft below surface	16.4	870	9.59	106.5	10.41
		11:55		1 ft from bottom	15.1	870	9.31	97.5	9.83
Pond 6, #11	Northern 3rd, ~50 yds North of footbridge (no sediment collected)	11:58	7.7	2 ft below surface	16.4	872	10.43	106.3	10.39
		11:59		1 ft from bottom	15.1	874	10.8	96.1	9.64
Long Pond bkg#1	Inlet south of Northern boat ramp	12:32	14	3 ft below surface	17.7	1328	8.07	106.7	10.24
		12:34		1 ft from bottom	11.2	1371	7.71	69.3	7.58

Water column sonde data 8/3/16

Station	Time(CST)	Barometer (mmHg)	GPS Coords	Total Depth (ft)	depth (ft)	SpCond (µmhos/cm)	D.O.(%sat)	D.O.(mg/L)	pH	Temp °C
LP bkg# 2	8/3/2016 8:03	748.7	40.12981, -87.73204	8	1	1258	122.7	9.15	8.33	29
	8/3/2016 8:05	748.9			3	1250	117.8	8.89	8.3	28.9
	8/3/2016 8:07	748.9			6	1429	71.5	5.2	7.67	28.5
	8/3/2016 8:08	748.9			7	1522	6.8	0.52	7.33	27.1
LP bkg #4	8/3/2016 8:41	748.5	40.13253, -87.73633	18.2	1	1223	82.3	6.14	8.17	29.5
	8/3/2016 8:43	748.5			6	1221	83.1	6.27	8.16	29
	8/3/2016 8:44	748.5			10	1258	36	2.79	7.59	28.5
	8/3/2016 8:45	748.6			14	1329	2.8	0.22	7.32	26.4
	8/3/2016 8:46	748.7			18	1369	1.8	0.15	7.1	23
LP bkg#3	8/3/2016 9:06	748.3	40.13278, -87.73566	18.5	1	1224	87.7	6.56	8.19	29.3
	NA				6	1224	80.7	6.13	8.19	29
	NA				10	1239	71	5.19	7.94	28.7
	NA				14	1327	8	0.6	7.32	26.7
	8/3/2016 9:10	748.3			18	1369	1.7	0.14	7.22	22.9
LP bkg #1	8/3/2016 9:38	747.9	40.13440, -87.74376	14.2	1	1219	91.6	6.7	8.21	29.3
	8/3/2016 9:39	748.1			4	1219	85.4	6.56	8.22	29.2
	8/3/2016 9:40	748.1			8	1219	88.5	6.55	8.17	29.1
	8/3/2016 9:41	748.1			12	1229	50.1	3.84	7.77	28.5
	8/3/2016 9:42	748.2			14	1277	63.4	4.96	7.79	27.4
P6 South basin	8/3/2016 11:16	747.7	40.11953,-87.73771	14.6	1	898	145	10.56	8.39	28.8
	8/3/2016 11:17	747.7			4	897	127.1	9.87	8.33	27.6
	8/3/2016 11:18	747.8			8	914	40.2	3.17	7.8	26.9
	8/3/2016 11:19	747.9			12	921	4.1	0.31	7.47	25.8
	8/3/2016 11:20	748			14	937	2	0.18	7.28	22.3
P6 central#1	8/3/2016 12:19	747.3	40.12137, -87.73906	11.6	1	843	144.2	10.88	8.27	28.1
	8/3/2016 12:20	747.4			4	869	118.1	9.47	8.08	27.2
	8/3/2016 12:21	747.5			7	904	87.3	6.98	7.79	26.4
	8/3/2016 12:22	747.5			9	909	37	2.98	7.52	25.8
	8/3/2016 12:23	747.7			11	961	24.9	2.04	7.39	25.4
P6 central #2	8/3/2016 12:40	747.2	40.12201, -87.73911	14.2	1	840	138.3	10.72	8.26	28.4
	8/3/2016 12:41	747.2			4	858	118.4	9.65	8.26	26.9
	8/3/2016 12:43	747.3			8	876	26.8	2.28	7.51	25.9
	8/3/2016 12:44	747.3			11	918	8.6	0.71	7.39	25.1
	8/3/2016 12:45	747.4			14	994	1.4	0.12	7.24	20.5
P6 North basin	8/3/2016 13:49	746.9	40.12492, -87.73840	7	1	718	207	15.16	8.66	30.4
	8/3/2016 13:51	746.9			3	724	147.9	11.51	8.29	28.5
	8/3/2016 13:52	747			5	731	91.6	7.07	7.82	27.9
	8/3/2016 13:53	747			6.5	733	40.7	3.24	7.63	27.7
P6 North additional										
approx 100 ft from N end	8/3/2016 14:18	746.5			1	724	187.5	14.04	8.54	32.8
	8/3/2016 14:19	746.5			near bottom	734	72.2	5.86	7.85	27.9
appox 100 yds from N end	8/3/2016 14:21	746.6			1	722	197.5	14.3	8.58	31.5
	8/3/2016 14:22	746.6			near bottom	734	29.2	2.38	7.51	27.6
150 ft from bridge	8/3/2016 14:26	746.6			1	767	151.1	10.63	8.29	30.4
	8/3/2016 14:27	746.7			near bottom	746	62.2	4.85	7.73	27.7

Representative water column profiles, 8/3/16



APPENDIX D

Water column and Sediment results

Appendix D - Analytical Results for Water Column Samples



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Report Date: September 20, 2016

Project: Pond 6

Submittal Date: 08/10/2016

Group Number: 1693437

PO Number: P1378316

State of Sample Origin: IL

<u>Client Sample Description</u>	Lancaster Labs <u>(LL) #</u>
LP2T Grab Surface Water	8519719
LP2T Filtered Grab Surface Water	8519720
LP2B Grab Surface Water	8519721
LP2B Filtered Grab Surface Water	8519722
LP4T Grab Surface Water	8519723
LP4T Filtered Grab Surface Water	8519724
LP4B Grab Surface Water	8519725
LP4B Filtered Grab Surface Water	8519726
LP3T Grab Surface Water	8519727
LP3T Filtered Grab Surface Water	8519728
LP3B Grab Surface Water	8519729
LP3B Filtered Grab Surface Water	8519730
LP1T Grab Surface Water	8519731
LP1T Filtered Grab Surface Water	8519732
LP1T2 Grab Surface Water	8519733
LP1T2 Filtered Grab Surface Water	8519734
LP1B Grab Surface Water	8519735
LP1B Filtered Grab Surface Water	8519736
LP1B2 Grab Surface Water	8519737
LP1B2 Filtered Grab Surface Water	8519738
P61T Grab Surface Water	8519739
P61T Filtered Grab Surface Water	8519740
P61B Grab Surface Water	8519741
P61B Filtered Grab Surface Water	8519742
P62T Grab Surface Water	8519743
P62T Filtered Grab Surface Water	8519744
P62B Grab Surface Water	8519745
P62B Filtered Grab Surface Water	8519746
P63T Grab Surface Water	8519747
P63T Filtered Grab Surface Water	8519748
P63D Grab Surface Water	8519749
P63D Filtered Grab Surface Water	8519750

P63B Grab Surface Water	8519751
P63B Filtered Grab Surface Water	8519752
P64T Grab Surface Water	8519753
P64T Filtered Grab Surface Water	8519754
P64B Grab Surface Water	8519755
P64B Filtered Grab Surface Water	8519756
P64B2 Grab Surface Water	8519757
P64B2 Filtered Grab Surface Water	8519758
P61B2 Grab Surface Water	8519759
P61B2 Filtered Grab Surface Water	8519760

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

Electronic Copy To Illinois State Water Survey

Attn: Mike Machesky

Respectfully Submitted,



Stacy L. Hess
Project Manager

(717) 556-7236

Sample Description: LP2T Grab Surface Water
Pond 6

LL Sample # WW 8519719
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:15 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.224	0.0083	0.100	1
01750	Calcium	7440-70-2	90.2	0.0382	0.400	1
01757	Magnesium	7439-95-4	93.1	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0023 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0285	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00073 J	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00015 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0181	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00063 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.772	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00028 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	0.0113 J	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.9	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.7	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	137	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:12	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:12	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:12	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:03	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:03	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:30	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:03	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2T Grab Surface Water
Pond 6

LL Sample # WW 8519719
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:15 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:03	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:03	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:03	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	06:55	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	19:54	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	21:14	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	02:11	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519720
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:15 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.217	0.0083	0.100	1
01750	Calcium	7440-70-2	87.6	0.0382	0.400	1
01757	Magnesium	7439-95-4	90.4	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0020 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0293	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00095 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00046 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.768	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	0.0164 J	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:15	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:15	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:15	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:32	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 18:06	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519720
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:15 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:06	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:06	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:06	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:06	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:06	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:06	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	06:57	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2B Grab Surface Water
Pond 6

LL Sample # WW 8519721
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:20 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.256	0.0083	0.100	1
01750	Calcium	7440-70-2	105	0.0382	0.400	1
01757	Magnesium	7439-95-4	102	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0025 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0315	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.151	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00062 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.951	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00022 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	0.0046 J	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	5.0	0.50	1.0	1
00273	Total Organic Carbon	n.a.	5.0	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	157	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:25	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:25	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:25	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:15	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:15	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:37	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:15	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2B Grab Surface Water
Pond 6

LL Sample # WW 8519721
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:20 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:15	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:15	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:15	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	06:59	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	20:33	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	21:41	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	02:19	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519722
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:20 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.254	0.0083	0.100	1
01750	Calcium	7440-70-2	106	0.0382	0.400	1
01757	Magnesium	7439-95-4	102	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0018 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0314	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.00059 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00058 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.916	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:29	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:29	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:29	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:39	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 18:18	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519722
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:20 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:18	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:18	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:18	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:18	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:18	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:18	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:05	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4T Grab Surface Water
Pond 6

LL Sample # WW 8519723
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:45 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.206	0.0083	0.100	1
01750	Calcium	7440-70-2	88.0	0.0382	0.400	1
01757	Magnesium	7439-95-4	87.1	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0018 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0310	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0137	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00069 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.693	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00041 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.5	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.1	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	152	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:32	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:32	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:32	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:21	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:21	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:41	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:21	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4T Grab Surface Water
Pond 6

LL Sample # WW 8519723
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:45 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:21	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:21	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:21	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:07	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	20:46	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	21:54	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	02:34	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519724
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:45 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.204	0.0083	0.100	1
01750	Calcium	7440-70-2	87.6	0.0382	0.400	1
01757	Magnesium	7439-95-4	86.7	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0020 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0308	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00080 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00060 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.704	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00023 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:35	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:35	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:35	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:42	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 18:25	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519724
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:45 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:25	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:25	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:25	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:25	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:25	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:25	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:09	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4B Grab Surface Water
Pond 6

LL Sample # WW 8519725
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:50 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.225	0.0083	0.100	1
01750	Calcium	7440-70-2	106	0.0382	0.400	1
01757	Magnesium	7439-95-4	92.0	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0038 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0389	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.459	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00041 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.824	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00036 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	5.0	0.50	1.0	1
00273	Total Organic Carbon	n.a.	5.0	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	195	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:39	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:39	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:39	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:28	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:28	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:44	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:28	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4B Grab Surface Water
Pond 6

LL Sample # WW 8519725
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:50 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:28	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:28	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:28	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:11	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	20:59	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	22:08	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	02:27	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519726
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:50 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.224	0.0083	0.100	1
01750	Calcium	7440-70-2	106	0.0382	0.400	1
01757	Magnesium	7439-95-4	92.2	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0028 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0287	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00029 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.800	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:42	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:42	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:42	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:46	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 18:31	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519726
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 08:50 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:31	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:31	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:31	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:31	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:31	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:31	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:13	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3T Grab Surface Water
Pond 6

LL Sample # WW 8519727
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:15 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.205	0.0083	0.100	1
01750	Calcium	7440-70-2	89.7	0.0382	0.400	1
01757	Magnesium	7439-95-4	88.4	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0015 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0287	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00059 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0134	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00058 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.699	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00028 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.3	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.2	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	153	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:46	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:46	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:46	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:34	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:34	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:47	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:34	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3T Grab Surface Water
Pond 6

LL Sample # WW 8519727
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:15 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:34	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:34	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:34	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:15	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	21:12	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	22:21	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	01:11	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519728
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:15 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.200	0.0083	0.100	1
01750	Calcium	7440-70-2	86.2	0.0382	0.400	1
01757	Magnesium	7439-95-4	84.8	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0016 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0293	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00053 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00068 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.672	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00025 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:49	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:49	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:49	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:49	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 18:37	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519728
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:15 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:37	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:37	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:37	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:37	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:37	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:37	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:17	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3B Grab Surface Water
Pond 6

LL Sample # WW 8519729
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:20 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.224	0.0083	0.100	1
01750	Calcium	7440-70-2	106	0.0382	0.400	1
01757	Magnesium	7439-95-4	92.3	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0033 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0355	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.466	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00039 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.804	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00034 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.8	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.8	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	198	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:53	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:53	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:53	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:40	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:40	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:51	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:40	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3B Grab Surface Water
Pond 6

LL Sample # WW 8519729
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:20 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:40	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:40	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:40	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:19	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	21:25	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	22:34	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	02:48	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519730
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:20 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.224	0.0083	0.100	1
01750	Calcium	7440-70-2	105	0.0382	0.400	1
01757	Magnesium	7439-95-4	91.4	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0026 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0292	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.00063 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00053 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0011 J	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00038 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.761	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 18:56	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 18:56	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 18:56	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:52	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 18:43	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519730
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:20 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:43	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:43	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:43	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:43	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:43	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:43	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:21	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1T Grab Surface Water
Pond 6

LL Sample # WW 8519731
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:40 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.205	0.0083	0.100	1
01750	Calcium	7440-70-2	88.3	0.0382	0.400	1
01757	Magnesium	7439-95-4	87.3	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0016 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0302	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0454	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00071 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.701	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00044 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.4	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.3	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	151	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 19:06	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 19:06	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 19:06	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:52	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:52	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 04:06	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:52	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1T Grab Surface Water
Pond 6

LL Sample # WW 8519731
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:40 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:52	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:52	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:52	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:23	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	21:53	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	22:47	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011201A	08/11/2016	20:30	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519732
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:40 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.204	0.0083	0.100	1
01750	Calcium	7440-70-2	86.6	0.0382	0.400	1
01757	Magnesium	7439-95-4	85.5	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0015 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0292	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00051 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.674	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00025 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 19:10	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 19:10	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 19:10	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 03:59	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 18:55	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519732
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:40 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:55	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:55	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:55	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:55	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:55	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:55	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:30	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1T2 Grab Surface Water
Pond 6

LL Sample # WW 8519733
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:45 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	N.D.	0.0083	0.100	1
01750	Calcium	7440-70-2	0.0416 J	0.0382	0.400	1
01757	Magnesium	7439-95-4	N.D.	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	N.D.	0.00068	0.0040	1
06026	Barium	7440-39-3	N.D.	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	N.D.	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	N.D.	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	N.D.	0.50	1.0	1
00273	Total Organic Carbon	n.a.	N.D.	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	N.D.	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 19:13	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 19:13	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 19:13	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 18:58	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 18:58	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/18/2016 18:58	Scott P Cuff	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 18:58	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1T2 Grab Surface Water
Pond 6

LL Sample # WW 8519733
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:45 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	18:58	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	18:58	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	18:58	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:32	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	22:07	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	23:01	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	01:24	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1T2 Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519734
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:45 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	N.D.	0.0083	0.100	1
01750	Calcium	7440-70-2	0.0543 J	0.0382	0.400	1
01757	Magnesium	7439-95-4	N.D.	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	N.D.	0.00068	0.0040	1
06026	Barium	7440-39-3	N.D.	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	N.D.	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	N.D.	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 19:16	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 19:16	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 19:16	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/18/2016 19:02	Scott P Cuff	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 19:02	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1T2 Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519734
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:45 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	19:02	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	19:02	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	19:02	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	19:02	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	19:02	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	19:02	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:34	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B Grab Surface Water
Pond 6

LL Sample # WW 8519735
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:53 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.210	0.0083	0.100	1
01750	Calcium	7440-70-2	94.0	0.0382	0.400	1
01757	Magnesium	7439-95-4	88.3	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0019 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0307	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0572	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00066 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.732	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00034 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.4	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.2	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	168	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 19:20	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 19:20	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 19:20	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 19:05	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 19:05	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 04:01	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 19:05	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B Grab Surface Water
Pond 6

LL Sample # WW 8519735
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:53 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	19:05	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	19:05	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	19:05	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:36	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	22:19	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298701B	08/23/2016	23:13	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011201B	08/11/2016	20:10	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519736
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:53 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.215	0.0083	0.100	1
01750	Calcium	7440-70-2	94.6	0.0382	0.400	1
01757	Magnesium	7439-95-4	88.7	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0020 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0306	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00069 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.700	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635001	08/18/2016 19:23	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635001	08/18/2016 19:23	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635001	08/18/2016 19:23	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1
06025	Arsenic	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1
06026	Barium	SW-846 6020A	1	162280639001D	08/19/2016 04:02	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1
06028	Cadmium	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1
06031	Chromium	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1
06032	Cobalt	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1
06033	Copper	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1
06035	Lead	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1
06037	Manganese	SW-846 6020A	1	162280639001A	08/18/2016 19:08	Scott P Cuff	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519736
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:53 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639001C	08/18/2016	19:08	Scott P Cuff	1
06041	Selenium	SW-846 6020A	1	162280639001B	08/18/2016	19:08	Scott P Cuff	1
06044	Strontium	SW-846 6020A	1	162280639001A	08/18/2016	19:08	Scott P Cuff	1
06045	Thallium	SW-846 6020A	1	162280639001A	08/18/2016	19:08	Scott P Cuff	1
06048	Vanadium	SW-846 6020A	1	162280639001A	08/18/2016	19:08	Scott P Cuff	1
06049	Zinc	SW-846 6020A	1	162280639001A	08/18/2016	19:08	Scott P Cuff	1
00259	Mercury	SW-846 7470A	1	162285713002	08/22/2016	07:38	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635001	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639001	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713002	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B2 Grab Surface Water
Pond 6

LL Sample # WW 8519737
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:58 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.205	0.0083	0.100	1
01750	Calcium	7440-70-2	89.2	0.0382	0.400	1
01757	Magnesium	7439-95-4	86.1	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0017 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0313	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0326	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00062 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.681	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00036 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.4	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.2	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	157	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 15:29	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 15:29	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 15:29	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:26	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:26	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:26	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:26	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B2 Grab Surface Water
Pond 6

LL Sample # WW 8519737
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:58 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:26	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:26	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:26	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	07:56	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701A	08/31/2016	22:33	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	00:21	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	01:04	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B2 Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519738
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:58 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.203	0.0083	0.100	1
01750	Calcium	7440-70-2	90.9	0.0382	0.400	1
01757	Magnesium	7439-95-4	87.6	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0016 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0296	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00052 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.660	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00028 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 15:33	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 15:33	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 15:33	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:36	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 09:36	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B2 Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519738
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 09:58 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:36	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:36	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:36	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:36	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:36	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:36	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	07:58	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P61T Grab Surface Water
Pond 6

LL Sample # WW 8519739
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:25 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.236	0.0083	0.100	1
01750	Calcium	7440-70-2	65.0	0.0382	0.400	1
01757	Magnesium	7439-95-4	31.5	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0033 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0371	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00018 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0641	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00077 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.189	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00067 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.7	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.6	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	250	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 15:43	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 15:43	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 15:43	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:39	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:39	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:39	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:39	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P61T Grab Surface Water
Pond 6

LL Sample # WW 8519739
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:25 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:39	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:39	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:39	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:00	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701B	08/31/2016	22:46	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	00:34	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011203A	08/11/2016	23:16	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P61T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519740
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:25 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.232	0.0083	0.100	1
01750	Calcium	7440-70-2	61.5	0.0382	0.400	1
01757	Magnesium	7439-95-4	30.2	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0030 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0332	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.00096 J	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00069 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.191	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00045 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 15:46	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 15:46	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 15:46	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:42	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 09:42	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P61T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519740
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:25 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:42	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:42	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:42	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:42	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:42	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:42	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:02	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P61B Grab Surface Water
Pond 6

LL Sample # WW 8519741
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.234	0.0083	0.100	1
01750	Calcium	7440-70-2	67.5	0.0382	0.400	1
01757	Magnesium	7439-95-4	30.8	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0074	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0568	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00032 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	2.61	0.0044	0.0200	5
06038	Molybdenum	7439-98-7	0.00047 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.196	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0010	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.3	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.1	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	293	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 15:50	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 15:50	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 15:50	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:45	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:45	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:45	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:45	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P61B Grab Surface Water
Pond 6

LL Sample # WW 8519741
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	09:45	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	09:45	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/19/2016	05:04	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	09:45	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	09:45	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	10:03	Choon Y Tian	5
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:45	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:45	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:45	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:45	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:45	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:45	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:04	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701B	08/31/2016	23:25	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	00:47	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011201A	08/11/2016	21:03	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P61B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519742
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.234	0.0083	0.100	1
01750	Calcium	7440-70-2	67.3	0.0382	0.400	1
01757	Magnesium	7439-95-4	30.9	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0060	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0362	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.00077 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	1.53	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.00058 J	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.195	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00050 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 15:53	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 15:53	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 15:53	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:48	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 09:48	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P61B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519742
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:30 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:48	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:48	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:48	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:48	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:48	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:48	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:06	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P62T Grab Surface Water
Pond 6

LL Sample # WW 8519743
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:25 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.150	0.0083	0.100	1
01750	Calcium	7440-70-2	68.0	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.0	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0015 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0490	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00086 J	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00012 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0489	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0078	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00068 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.215	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0011	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	3.7	0.50	1.0	1
00273	Total Organic Carbon	n.a.	3.4	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	248	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 15:56	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 15:56	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 15:56	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:51	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:51	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:51	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:51	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P62T Grab Surface Water
Pond 6

LL Sample # WW 8519743
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:25 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:51	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:51	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:51	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:08	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701B	08/31/2016	23:39	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	01:00	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011201A	08/11/2016	22:00	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P62T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519744
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:25 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.151	0.0083	0.100	1
01750	Calcium	7440-70-2	67.6	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.0	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0015 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0492	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.0012 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0078	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00066 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.206	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0010	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 15:59	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 15:59	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 15:59	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:54	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 09:54	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P62T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519744
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:25 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:54	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:54	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:54	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:54	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:54	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:54	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:10	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P62B Grab Surface Water
Pond 6

LL Sample # WW 8519745
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:30 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.167	0.0083	0.100	1
01750	Calcium	7440-70-2	71.4	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.5	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0022 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0621	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.00072 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	0.00022 J	0.00020	0.0010	1
06033	Copper	7440-50-8	0.0013 J	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00040 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.484	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0079	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00067 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.240	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0018	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	3.2	0.50	1.0	1
00273	Total Organic Carbon	n.a.	3.0	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	260	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:03	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:03	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:03	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 09:57	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 09:57	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 09:57	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 09:57	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P62B Grab Surface Water
Pond 6

LL Sample # WW 8519745
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/19/2016	05:06	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	09:57	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	09:57	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	09:57	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:13	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244298701B	08/31/2016	23:52	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	01:13	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	01:46	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P62B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519746
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.170	0.0083	0.100	1
01750	Calcium	7440-70-2	71.5	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.4	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0016 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0524	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.00061 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00090 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0078	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00075 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.224	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00070 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:06	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:06	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:06	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:00	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 10:00	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P62B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519746
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:00	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:00	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:00	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:00	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:00	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:00	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	07:44	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P63T Grab Surface Water
Pond 6

LL Sample # WW 8519747
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:50 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.148	0.0083	0.100	1
01750	Calcium	7440-70-2	67.3	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.1	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0019 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0503	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.0011 J	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00013 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0328	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0076	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00067 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.215	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0012	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.1	0.50	1.0	1
00273	Total Organic Carbon	n.a.	3.3	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	246	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:09	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:09	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:09	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:13	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:13	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:13	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:13	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P63T Grab Surface Water
Pond 6

LL Sample # WW 8519747
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:50 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:13	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:13	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:13	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:19	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244987301A	08/31/2016	21:43	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	01:27	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011201A	08/11/2016	21:45	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P63T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519748
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:50 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.151	0.0083	0.100	1
01750	Calcium	7440-70-2	67.1	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.1	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0015 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0488	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00090 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0078	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00064 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.213	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00080 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:13	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:13	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:13	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:16	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 10:16	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P63T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519748
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:50 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:16	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:16	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:16	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:16	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:16	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:16	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:21	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P63D Grab Surface Water
Pond 6

LL Sample # WW 8519749
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:53 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.150	0.0083	0.100	1
01750	Calcium	7440-70-2	66.9	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.0	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0016 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0485	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00088 J	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00010 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0345	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0077	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00065 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.212	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0012	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.1	0.50	1.0	1
00273	Total Organic Carbon	n.a.	3.3	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	244	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:23	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:23	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:23	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:19	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:19	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:19	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:19	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P63D Grab Surface Water
Pond 6

LL Sample # WW 8519749
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:53 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:19	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:19	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:19	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:23	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244987301A	08/31/2016	21:58	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	01:40	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011201A	08/11/2016	22:47	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P63D Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519750
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:53 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.148	0.0083	0.100	1
01750	Calcium	7440-70-2	65.6	0.0382	0.400	1
01757	Magnesium	7439-95-4	27.5	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0018 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0475	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00085 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0077	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00064 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.209	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00096 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:26	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:26	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:26	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:22	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 10:22	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P63D Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519750
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:53 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:22	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:22	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:22	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:22	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:22	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:22	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:25	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P63B Grab Surface Water
Pond 6

LL Sample # WW 8519751
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:58 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.162	0.0083	0.100	1
01750	Calcium	7440-70-2	73.9	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.9	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0048	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0854	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.00096 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	0.00045 J	0.00020	0.0010	1
06033	Copper	7440-50-8	0.0010 J	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00064 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	4.50	0.0044	0.0200	5
06038	Molybdenum	7439-98-7	0.0070	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00051 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.233	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0020	0.00020	0.0010	1
06049	Zinc	7440-66-6	0.0037 J	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	3.9	0.50	1.0	1
00273	Total Organic Carbon	n.a.	3.3	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	293	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:29	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:29	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:29	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:25	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:25	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:25	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:25	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P63B Grab Surface Water
Pond 6

LL Sample # WW 8519751
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:58 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	10:25	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	10:25	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/19/2016	05:07	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	10:25	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	10:25	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	10:38	Choon Y Tian	5
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:25	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:25	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:25	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:25	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:25	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:25	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:27	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244987301A	08/31/2016	22:13	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	01:53	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011203A	08/11/2016	23:02	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P63B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519752
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:58 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.162	0.0083	0.100	1
01750	Calcium	7440-70-2	73.1	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.7	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0035 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0577	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	1.66	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0070	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00045 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.229	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00047 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:33	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:33	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:33	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:28	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 10:28	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P63B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519752
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 12:58 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:28	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:28	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:28	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:28	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:28	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:28	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:29	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P64T Grab Surface Water
Pond 6

LL Sample # WW 8519753
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 13:57 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.137	0.0083	0.100	1
01750	Calcium	7440-70-2	52.9	0.0382	0.400	1
01757	Magnesium	7439-95-4	27.2	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0044	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0407	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.00062 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00082 J	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00024 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0897	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0061	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00058 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.182	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0018	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	5.3	0.50	1.0	1
00273	Total Organic Carbon	n.a.	4.5	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	202	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:36	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:36	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:36	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:31	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:31	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:31	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:31	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P64T Grab Surface Water
Pond 6

LL Sample # WW 8519753
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 13:57 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:31	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:31	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:31	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:31	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244987301A	08/31/2016	22:27	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702A	08/24/2016	02:06	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011203A	08/11/2016	23:09	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P64T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519754
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 13:57 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.136	0.0083	0.100	1
01750	Calcium	7440-70-2	50.2	0.0382	0.400	1
01757	Magnesium	7439-95-4	27.4	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0039 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0388	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.00080 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.00084 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0066	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00045 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.182	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0012	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635002	08/18/2016 16:39	Cindy M Gehman	1
01750	Calcium	SW-846 6010C	1	162280635002	08/18/2016 16:39	Cindy M Gehman	1
01757	Magnesium	SW-846 6010C	1	162280635002	08/18/2016 16:39	Cindy M Gehman	1
06024	Antimony	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1
06025	Arsenic	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1
06026	Barium	SW-846 6020A	1	162280639002D	08/18/2016 10:34	Choon Y Tian	1
06027	Beryllium	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1
06031	Chromium	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1
06033	Copper	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1
06035	Lead	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1
06037	Manganese	SW-846 6020A	1	162280639002A	08/18/2016 10:34	Choon Y Tian	1

*=This limit was used in the evaluation of the final result

Sample Description: P64T Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519754
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 13:57 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639002C	08/18/2016	10:34	Choon Y Tian	1
06041	Selenium	SW-846 6020A	1	162280639002B	08/18/2016	10:34	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	162280639002A	08/18/2016	10:34	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	162280639002A	08/18/2016	10:34	Choon Y Tian	1
06048	Vanadium	SW-846 6020A	1	162280639002A	08/18/2016	10:34	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	162280639002A	08/18/2016	10:34	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	162285713003	08/22/2016	08:33	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635002	08/17/2016	21:45	Annamaria Kuhns	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639002	08/17/2016	22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713003	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P64B Grab Surface Water
Pond 6

LL Sample # WW 8519755
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 14:02 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.130	0.0083	0.100	1
01750	Calcium	7440-70-2	56.0	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.2	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0051	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0697	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	0.0011 J	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.0011 J	0.00052	0.0040	1
06035	Lead	7439-92-1	0.00078 J	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.291	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0067	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00056 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.184	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.0026	0.00020	0.0010	1
06049	Zinc	7440-66-6	0.0076 J	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	4.4	0.50	1.0	1
00273	Total Organic Carbon	n.a.	3.4	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	211	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635003	08/18/2016 17:58	Suzanne M Will	1
01750	Calcium	SW-846 6010C	1	162280635003	08/18/2016 17:58	Suzanne M Will	1
01757	Magnesium	SW-846 6010C	1	162280635003	08/18/2016 17:58	Suzanne M Will	1
06024	Antimony	SW-846 6020A	1	162280639003A	08/18/2016 18:28	Patrick J Engle	1
06025	Arsenic	SW-846 6020A	1	162280639003A	08/18/2016 18:28	Patrick J Engle	1
06026	Barium	SW-846 6020A	1	162280639003D	08/18/2016 18:28	Patrick J Engle	1
06027	Beryllium	SW-846 6020A	1	162280639003A	08/18/2016 18:28	Patrick J Engle	1

*=This limit was used in the evaluation of the final result

Sample Description: P64B Grab Surface Water
Pond 6

LL Sample # WW 8519755
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 14:02 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06031	Chromium	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06032	Cobalt	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06033	Copper	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06035	Lead	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06037	Manganese	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06038	Molybdenum	SW-846 6020A	1	162280639003C	08/18/2016	18:28	Patrick J Engle	1
06041	Selenium	SW-846 6020A	1	162280639003B	08/18/2016	18:28	Patrick J Engle	1
06044	Strontium	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06045	Thallium	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06048	Vanadium	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
06049	Zinc	SW-846 6020A	1	162280639003A	08/18/2016	18:28	Patrick J Engle	1
00259	Mercury	SW-846 7470A	1	162285713004	08/22/2016	08:56	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635003	08/17/2016	22:07	James L Mertz	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639003	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713004	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244987301A	08/31/2016	22:42	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702B	08/24/2016	03:08	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011201A	08/11/2016	21:53	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P64B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519756
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 14:02 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	0.131	0.0083	0.100	1
01750	Calcium	7440-70-2	56.6	0.0382	0.400	1
01757	Magnesium	7439-95-4	28.5	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	0.0036 J	0.00068	0.0040	1
06026	Barium	7440-39-3	0.0454	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	0.0010 J	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	0.0013 J	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	0.0063	0.00023	0.0010	1
06041	Selenium	7782-49-2	0.00047 J	0.00044	0.0040	1
06044	Strontium	7440-24-6	0.179	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	0.00090 J	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635003	08/18/2016 18:01	Suzanne M Will	1
01750	Calcium	SW-846 6010C	1	162280635003	08/18/2016 18:01	Suzanne M Will	1
01757	Magnesium	SW-846 6010C	1	162280635003	08/18/2016 18:01	Suzanne M Will	1
06024	Antimony	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1
06025	Arsenic	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1
06026	Barium	SW-846 6020A	1	162280639003D	08/18/2016 18:31	Patrick J Engle	1
06027	Beryllium	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1
06028	Cadmium	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1
06031	Chromium	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1
06032	Cobalt	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1
06033	Copper	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1
06035	Lead	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1
06037	Manganese	SW-846 6020A	1	162280639003A	08/18/2016 18:31	Patrick J Engle	1

*=This limit was used in the evaluation of the final result

Sample Description: P64B Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519756
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 14:02 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639003C	08/18/2016	18:31	Patrick J Engle	1
06041	Selenium	SW-846 6020A	1	162280639003B	08/18/2016	18:31	Patrick J Engle	1
06044	Strontium	SW-846 6020A	1	162280639003A	08/18/2016	18:31	Patrick J Engle	1
06045	Thallium	SW-846 6020A	1	162280639003A	08/18/2016	18:31	Patrick J Engle	1
06048	Vanadium	SW-846 6020A	1	162280639003A	08/18/2016	18:31	Patrick J Engle	1
06049	Zinc	SW-846 6020A	1	162280639003A	08/18/2016	18:31	Patrick J Engle	1
00259	Mercury	SW-846 7470A	1	162285713004	08/22/2016	08:58	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635003	08/17/2016	22:07	James L Mertz	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639003	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713004	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P64B2 Grab Surface Water
Pond 6

LL Sample # WW 8519757
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 15:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010C	mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	N.D.	0.0083	0.100	1
01750	Calcium	7440-70-2	N.D.	0.0382	0.400	1
01757	Magnesium	7439-95-4	N.D.	0.0190	0.200	1
		SW-846 6020A	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	N.D.	0.00068	0.0040	1
06026	Barium	7440-39-3	N.D.	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	N.D.	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	N.D.	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
Wet Chemistry						
		SM 5310 C-2000	mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	0.85 J	0.50	1.0	1
00273	Total Organic Carbon	n.a.	N.D.	0.50	1.0	1
		SM 2320 B-1997	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	N.D.	1.7	5.0	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635003	08/18/2016 18:04	Suzanne M Will	1
01750	Calcium	SW-846 6010C	1	162280635003	08/18/2016 18:04	Suzanne M Will	1
01757	Magnesium	SW-846 6010C	1	162280635003	08/18/2016 18:04	Suzanne M Will	1
06024	Antimony	SW-846 6020A	1	162280639003A	08/18/2016 18:40	Patrick J Engle	1
06025	Arsenic	SW-846 6020A	1	162280639003A	08/18/2016 18:40	Patrick J Engle	1
06026	Barium	SW-846 6020A	1	162280639003D	08/18/2016 18:40	Patrick J Engle	1
06027	Beryllium	SW-846 6020A	1	162280639003A	08/18/2016 18:40	Patrick J Engle	1

*=This limit was used in the evaluation of the final result

Sample Description: P64B2 Grab Surface Water
Pond 6

LL Sample # WW 8519757
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 15:30 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
06028	Cadmium	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06031	Chromium	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06032	Cobalt	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06033	Copper	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06035	Lead	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06037	Manganese	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06038	Molybdenum	SW-846 6020A	1	162280639003C	08/18/2016	18:40	Patrick J Engle	1
06041	Selenium	SW-846 6020A	1	162280639003B	08/18/2016	18:40	Patrick J Engle	1
06044	Strontium	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06045	Thallium	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06048	Vanadium	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
06049	Zinc	SW-846 6020A	1	162280639003A	08/18/2016	18:40	Patrick J Engle	1
00259	Mercury	SW-846 7470A	1	162285713004	08/22/2016	09:00	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635003	08/17/2016	22:07	James L Mertz	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639003	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713004	08/22/2016	00:30	Annamaria Kuhns	1
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16244987301A	08/31/2016	23:12	Clinton M Wilson	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16236298702B	08/24/2016	03:15	Clinton M Wilson	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16224011202A	08/12/2016	00:56	Brandon P Costik	1

*=This limit was used in the evaluation of the final result

Sample Description: P64B2 Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519758
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 15:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C						
08014	Boron	7440-42-8	N.D.	0.0083	0.100	1
01750	Calcium	7440-70-2	0.0509 J	0.0382	0.400	1
01757	Magnesium	7439-95-4	N.D.	0.0190	0.200	1
SW-846 6020A						
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	N.D.	0.00068	0.0040	1
06026	Barium	7440-39-3	N.D.	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	N.D.	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	N.D.	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A						
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635003	08/18/2016 18:08	Suzanne M Will	1
01750	Calcium	SW-846 6010C	1	162280635003	08/18/2016 18:08	Suzanne M Will	1
01757	Magnesium	SW-846 6010C	1	162280635003	08/18/2016 18:08	Suzanne M Will	1
06024	Antimony	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1
06025	Arsenic	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1
06026	Barium	SW-846 6020A	1	162280639003D	08/18/2016 18:43	Patrick J Engle	1
06027	Beryllium	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1
06028	Cadmium	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1
06031	Chromium	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1
06032	Cobalt	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1
06033	Copper	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1
06035	Lead	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1
06037	Manganese	SW-846 6020A	1	162280639003A	08/18/2016 18:43	Patrick J Engle	1

*=This limit was used in the evaluation of the final result

Sample Description: P64B2 Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519758
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 15:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639003C	08/18/2016	18:43	Patrick J Engle	1
06041	Selenium	SW-846 6020A	1	162280639003B	08/18/2016	18:43	Patrick J Engle	1
06044	Strontium	SW-846 6020A	1	162280639003A	08/18/2016	18:43	Patrick J Engle	1
06045	Thallium	SW-846 6020A	1	162280639003A	08/18/2016	18:43	Patrick J Engle	1
06048	Vanadium	SW-846 6020A	1	162280639003A	08/18/2016	18:43	Patrick J Engle	1
06049	Zinc	SW-846 6020A	1	162280639003A	08/18/2016	18:43	Patrick J Engle	1
00259	Mercury	SW-846 7470A	1	162285713004	08/22/2016	09:02	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635003	08/17/2016	22:07	James L Mertz	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639003	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713004	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Sample Description: P61B2 Grab Surface Water
Pond 6

LL Sample # WW 8519759
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 15:50 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Wet Chemistry						
	SM 5310 C-2000		mg/l	mg/l	mg/l	
07547	Dissolved Organic Carbon	n.a.	N.D.	0.50	1.0	1
	The holding time was not met.					

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07547	Dissolved Organic Carbon	SM 5310 C-2000	1	16258987401A	09/14/2016 21:27	Clinton M Wilson	1

*=This limit was used in the evaluation of the final result

Sample Description: P61B2 Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519760
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 15:50 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals Dissolved						
SW-846 6010C			mg/l	mg/l	mg/l	
08014	Boron	7440-42-8	N.D.	0.0083	0.100	1
01750	Calcium	7440-70-2	N.D.	0.0382	0.400	1
01757	Magnesium	7439-95-4	N.D.	0.0190	0.200	1
SW-846 6020A			mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	N.D.	0.00048	0.0020	1
06025	Arsenic	7440-38-2	N.D.	0.00068	0.0040	1
06026	Barium	7440-39-3	N.D.	0.00096	0.0040	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.0010	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.0010	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0040	1
06032	Cobalt	7440-48-4	N.D.	0.00020	0.0010	1
06033	Copper	7440-50-8	N.D.	0.00052	0.0040	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0020	1
06037	Manganese	7439-96-5	N.D.	0.00088	0.0040	1
06038	Molybdenum	7439-98-7	N.D.	0.00023	0.0010	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0040	1
06044	Strontium	7440-24-6	N.D.	0.00044	0.0020	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.0010	1
06048	Vanadium	7440-62-2	N.D.	0.00020	0.0010	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0300	1
SW-846 7470A			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08014	Boron	SW-846 6010C	1	162280635003	08/18/2016 18:11	Suzanne M Will	1
01750	Calcium	SW-846 6010C	1	162280635003	08/18/2016 18:11	Suzanne M Will	1
01757	Magnesium	SW-846 6010C	1	162280635003	08/18/2016 18:11	Suzanne M Will	1
06024	Antimony	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1
06025	Arsenic	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1
06026	Barium	SW-846 6020A	1	162280639003D	08/18/2016 18:46	Patrick J Engle	1
06027	Beryllium	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1
06028	Cadmium	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1
06031	Chromium	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1
06032	Cobalt	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1
06033	Copper	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1
06035	Lead	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1
06037	Manganese	SW-846 6020A	1	162280639003A	08/18/2016 18:46	Patrick J Engle	1

*=This limit was used in the evaluation of the final result

Sample Description: P61B2 Filtered Grab Surface Water
Pond 6

LL Sample # WW 8519760
LL Group # 1693437
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 15:50 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:30

Champaign IL 61820

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution Factor
					Date	Time		
06038	Molybdenum	SW-846 6020A	1	162280639003C	08/18/2016	18:46	Patrick J Engle	1
06041	Selenium	SW-846 6020A	1	162280639003B	08/18/2016	18:46	Patrick J Engle	1
06044	Strontium	SW-846 6020A	1	162280639003A	08/18/2016	18:46	Patrick J Engle	1
06045	Thallium	SW-846 6020A	1	162280639003A	08/18/2016	18:46	Patrick J Engle	1
06048	Vanadium	SW-846 6020A	1	162280639003A	08/18/2016	18:46	Patrick J Engle	1
06049	Zinc	SW-846 6020A	1	162280639003A	08/18/2016	18:46	Patrick J Engle	1
00259	Mercury	SW-846 7470A	1	162285713004	08/22/2016	09:08	Damary Valentin	1
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	162280635003	08/17/2016	22:07	James L Mertz	1
10639	ICPMS - Water, 3020A - U4	SW-846 3020A	1	162280639003	08/17/2016	20:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162285713004	08/22/2016	00:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l
Batch number: 162280635001	Sample number(s): 8519719-8519736		
Boron	N.D.	0.0083	0.100
Calcium	0.0649 J	0.0382	0.400
Magnesium	0.0550 J	0.0190	0.200
Batch number: 162280635002	Sample number(s): 8519737-8519754		
Boron	N.D.	0.0083	0.100
Calcium	0.0694 J	0.0382	0.400
Magnesium	0.0523 J	0.0190	0.200
Batch number: 162280635003	Sample number(s): 8519755-8519758,8519760		
Boron	N.D.	0.0083	0.100
Calcium	N.D.	0.0382	0.400
Magnesium	N.D.	0.0190	0.200
Batch number: 162280639001A	Sample number(s): 8519719-8519736		
Antimony	N.D.	0.00048	0.0020
Arsenic	N.D.	0.00068	0.0040
Beryllium	N.D.	0.00011	0.0010
Cadmium	N.D.	0.00019	0.0010
Chromium	N.D.	0.00059	0.0040
Cobalt	N.D.	0.00020	0.0010
Copper	N.D.	0.00052	0.0040
Lead	N.D.	0.000090	0.0020
Manganese	N.D.	0.00088	0.0040
Strontium	N.D.	0.00044	0.0020
Thallium	N.D.	0.00016	0.0010
Vanadium	N.D.	0.00020	0.0010
Zinc	N.D.	0.0035	0.0300
Batch number: 162280639001B	Sample number(s): 8519719-8519736		
Selenium	N.D.	0.00044	0.0040
Batch number: 162280639001C	Sample number(s): 8519719-8519736		
Molybdenum	N.D.	0.00023	0.0010
Batch number: 162280639001D	Sample number(s): 8519719-8519736		
Barium	N.D.	0.00096	0.0040
Batch number: 162280639002A	Sample number(s): 8519737-8519754		
Antimony	N.D.	0.00048	0.0020
Arsenic	N.D.	0.00068	0.0040
Beryllium	N.D.	0.00011	0.0010
Cadmium	N.D.	0.00019	0.0010
Chromium	N.D.	0.00059	0.0040
Cobalt	N.D.	0.00020	0.0010
Copper	N.D.	0.00052	0.0040

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l
Lead	N.D.	0.000090	0.0020
Manganese	N.D.	0.00088	0.0040
Strontium	N.D.	0.00044	0.0020
Thallium	N.D.	0.00016	0.0010
Vanadium	N.D.	0.00020	0.0010
Zinc	N.D.	0.0035	0.0300
Batch number: 162280639002B	Sample number(s): 8519737-8519754		
Selenium	N.D.	0.00044	0.0040
Batch number: 162280639002C	Sample number(s): 8519737-8519754		
Molybdenum	N.D.	0.00023	0.0010
Batch number: 162280639002D	Sample number(s): 8519737-8519754		
Barium	N.D.	0.00096	0.0040
Batch number: 162280639003A	Sample number(s): 8519755-8519758,8519760		
Antimony	N.D.	0.00048	0.0020
Arsenic	N.D.	0.00068	0.0040
Beryllium	N.D.	0.00011	0.0010
Cadmium	N.D.	0.00019	0.0010
Chromium	N.D.	0.00059	0.0040
Cobalt	N.D.	0.00020	0.0010
Copper	N.D.	0.00052	0.0040
Lead	N.D.	0.000090	0.0020
Manganese	N.D.	0.00088	0.0040
Strontium	N.D.	0.00044	0.0020
Thallium	N.D.	0.00016	0.0010
Vanadium	N.D.	0.00020	0.0010
Zinc	N.D.	0.0035	0.0300
Batch number: 162280639003B	Sample number(s): 8519755-8519758,8519760		
Selenium	N.D.	0.00044	0.0040
Batch number: 162280639003C	Sample number(s): 8519755-8519758,8519760		
Molybdenum	N.D.	0.00023	0.0010
Batch number: 162280639003D	Sample number(s): 8519755-8519758,8519760		
Barium	N.D.	0.00096	0.0040
Batch number: 162285713002	Sample number(s): 8519719-8519736		
Mercury	N.D.	0.000050	0.00020
Batch number: 162285713003	Sample number(s): 8519737-8519754		
Mercury	N.D.	0.000050	0.00020
Batch number: 162285713004	Sample number(s): 8519755-8519758,8519760		
Mercury	N.D.	0.000050	0.00020
Batch number: 16236298701B	Sample number(s): 8519719,8519721,8519723,8519725,8519727,8519729,8519731,8519733,8519735		
Total Organic Carbon	N.D.	0.50	1.0
Batch number: 16236298702A	Sample number(s): 8519737,8519739,8519741,8519743,8519745,8519747,8519749,8519751,8519753		
Total Organic Carbon	N.D.	0.50	1.0

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l
Batch number: 16236298702B	Sample number(s): 8519755,8519757		
Total Organic Carbon	N.D.	0.50	1.0
Batch number: 16244298701A	Sample number(s):		
	8519719,8519721,8519723,8519725,8519727,8519729,8519731,8519733,8519735,8519737		
Dissolved Organic Carbon	N.D.	0.50	1.0
Batch number: 16244298701B	Sample number(s): 8519739,8519741,8519743,8519745		
Dissolved Organic Carbon	N.D.	0.50	1.0
Batch number: 16244987301A	Sample number(s): 8519747,8519749,8519751,8519753,8519755,8519757		
Dissolved Organic Carbon	0.63 J	0.50	1.0
Batch number: 16258987401A	Sample number(s): 8519759		
Dissolved Organic Carbon	N.D.	0.50	1.0
	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3
Batch number: 16224011201A	Sample number(s): 8519731,8519741,8519743,8519747,8519749,8519755		
Total Alkalinity to pH 4.5	N.D.	1.7	5.0
Batch number: 16224011201B	Sample number(s): 8519735		
Total Alkalinity to pH 4.5	N.D.	1.7	5.0
Batch number: 16224011202A	Sample number(s):		
	8519719,8519721,8519723,8519725,8519727,8519729,8519733,8519737,8519745,8519757		
Total Alkalinity to pH 4.5	N.D.	1.7	5.0
Batch number: 16224011203A	Sample number(s): 8519739,8519751,8519753		
Total Alkalinity to pH 4.5	N.D.	1.7	5.0

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/l	mg/l	mg/l	mg/l					
Batch number: 162280635001	Sample number(s): 8519719-8519736								
Boron	2.00	1.83			92		80-120		
Calcium	4.00	4.00			100		80-120		
Magnesium	2.00	2.00			100		80-120		
Batch number: 162280635002	Sample number(s): 8519737-8519754								
Boron	2.00	1.85			93		80-120		
Calcium	4.00	3.91			98		80-120		
Magnesium	2.00	1.96			98		80-120		
Batch number: 162280635003	Sample number(s): 8519755-8519758,8519760								
Boron	2.00	1.81			90		80-120		
Calcium	4.00	4.02			101		80-120		
Magnesium	2.00	2.02			101		80-120		
Batch number: 162280639001A	Sample number(s): 8519719-8519736								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Antimony	0.00600	0.00633			106		80-120		
Arsenic	0.0100	0.0104			104		80-120		
Beryllium	0.00400	0.00408			102		80-120		
Cadmium	0.00500	0.00491			98		80-120		
Chromium	0.0500	0.0502			100		80-120		
Cobalt	0.250	0.252			101		80-120		
Copper	0.0500	0.0518			104		80-120		
Lead	0.0150	0.0155			103		80-120		
Manganese	0.0500	0.0491			98		80-120		
Strontium	0.0400	0.0384			96		80-120		
Thallium	0.00200	0.00196			98		80-120		
Vanadium	0.0500	0.0495			99		80-120		
Zinc	0.500	0.507			101		80-120		
Batch number: 162280639001B	Sample number(s): 8519719-8519736								
Selenium	0.0100	0.0102			102		80-120		
Batch number: 162280639001C	Sample number(s): 8519719-8519736								
Molybdenum	0.0500	0.0490			98		80-120		
Batch number: 162280639001D	Sample number(s): 8519719-8519736								
Barium	0.0500	0.0501			100		80-120		
Batch number: 162280639002A	Sample number(s): 8519737-8519754								
Antimony	0.00600	0.00601			100		80-120		
Arsenic	0.0100	0.0109			109		80-120		
Beryllium	0.00400	0.00407			102		80-120		
Cadmium	0.00500	0.00480			96		80-120		
Chromium	0.0500	0.0498			100		80-120		
Cobalt	0.250	0.231			92		80-120		
Copper	0.0500	0.0493			99		80-120		
Lead	0.0150	0.0153			102		80-120		
Manganese	0.0500	0.0506			101		80-120		
Strontium	0.0400	0.0382			96		80-120		
Thallium	0.00200	0.00209			104		80-120		
Vanadium	0.0500	0.0483			97		80-120		
Zinc	0.500	0.479			96		80-120		
Batch number: 162280639002B	Sample number(s): 8519737-8519754								
Selenium	0.0100	0.0102			102		80-120		
Batch number: 162280639002C	Sample number(s): 8519737-8519754								
Molybdenum	0.0500	0.0492			98		80-120		
Batch number: 162280639002D	Sample number(s): 8519737-8519754								
Barium	0.0500	0.0489			98		80-120		
Batch number: 162280639003A	Sample number(s): 8519755-8519758,8519760								
Antimony	0.00600	0.00578			96		80-120		
Arsenic	0.0100	0.0106			106		80-120		
Beryllium	0.00400	0.00408			102		80-120		
Cadmium	0.00500	0.00514			103		80-120		
Chromium	0.0500	0.0492			98		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Cobalt	0.250	0.239			96		80-120		
Copper	0.0500	0.0486			97		80-120		
Lead	0.0150	0.0152			101		80-120		
Manganese	0.0500	0.0516			103		80-120		
Strontium	0.0400	0.0395			99		80-120		
Thallium	0.00200	0.00197			99		80-120		
Vanadium	0.0500	0.0499			100		80-120		
Zinc	0.500	0.513			103		80-120		
Batch number: 162280639003B	Sample number(s): 8519755-8519758,8519760								
Selenium	0.0100	0.0100			100		80-120		
Batch number: 162280639003C	Sample number(s): 8519755-8519758,8519760								
Molybdenum	0.0500	0.0509			102		80-120		
Batch number: 162280639003D	Sample number(s): 8519755-8519758,8519760								
Barium	0.0500	0.0493			99		80-120		
Batch number: 162285713002	Sample number(s): 8519719-8519736								
Mercury	0.00100	0.000998			100		80-120		
Batch number: 162285713003	Sample number(s): 8519737-8519754								
Mercury	0.00100	0.000927			93		80-120		
Batch number: 162285713004	Sample number(s): 8519755-8519758,8519760								
Mercury	0.00100	0.000931			93		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16236298701B	Sample number(s):								
Total Organic Carbon	25	26.14			105		91-113		
Batch number: 16236298702A	Sample number(s):								
Total Organic Carbon	25	26.08			104		91-113		
Batch number: 16236298702B	Sample number(s): 8519755,8519757								
Total Organic Carbon	25	26.08			104		91-113		
Batch number: 16244298701A	Sample number(s):								
Dissolved Organic Carbon	25	28.16			113		86-114		
Batch number: 16244298701B	Sample number(s): 8519739,8519741,8519743,8519745								
Dissolved Organic Carbon	25	28.16			113		86-114		
Batch number: 16244987301A	Sample number(s): 8519747,8519749,8519751,8519753,8519755,8519757								
Dissolved Organic Carbon	25	24.41			98		86-114		
Batch number: 16258987401A	Sample number(s): 8519759								
Dissolved Organic Carbon	25	25.36			101		86-114		
	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3					

*- Outside of specification

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l as CaCO3	LCS Conc mg/l as CaCO3	LCSD Spike Added mg/l as CaCO3	LCSD Conc mg/l as CaCO3	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 16224011201A Total Alkalinity to pH 4.5	188	183.41	Sample number(s): 8519731, 8519741, 8519743, 8519747, 8519749, 8519755		98		84-110		
Batch number: 16224011201B Total Alkalinity to pH 4.5	188	183.41	Sample number(s): 8519735		98		84-110		
Batch number: 16224011202A Total Alkalinity to pH 4.5	188	183.96	Sample number(s): 8519719, 8519721, 8519723, 8519725, 8519727, 8519729, 8519733, 8519737, 8519745, 8519757		98		84-110		
Batch number: 16224011203A Total Alkalinity to pH 4.5	188	184.14	Sample number(s): 8519739, 8519751, 8519753		98		84-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 162280635001 Boron Calcium Magnesium	0.137 24.5 11.08	2.00 4.00 2.00	1.95 27.69 12.63	2.00 4.00 2.00	1.99 28.17 12.88	91 80 (2) 78 (2)	93 92 (2) 90 (2)	75-125 75-125 75-125	2 2 2	20 20 20
Batch number: 162280635002 Boron Calcium Magnesium	0.142 24.79 11.21	2.00 4.00 2.00	2.00 28.2 12.87	2.00 4.00 2.00	2.02 28.03 12.77	93 85 (2) 83 (2)	94 81 (2) 78 (2)	75-125 75-125 75-125	1 1 1	20 20 20
Batch number: 162280635003 Boron Calcium Magnesium	0.0163 10.99 2.04	2.00 4.00 2.00	1.85 14.82 4.31	2.00 4.00 2.00	1.83 14.95 4.33	92 96 114	90 99 114	75-125 75-125 75-125	1 1 0	20 20 20
Batch number: 162280639001A Antimony Arsenic Beryllium Cadmium Chromium Cobalt Copper Lead Manganese Strontium Thallium Vanadium	N.D. 0.00495 N.D. N.D. 0.00342 0.00371 0.00538 0.00196 3.68 3.90 N.D. 0.00512	0.00600 0.0100 0.00400 0.00500 0.0500 0.250 0.0500 0.0150 0.0500 0.0400 0.00200 0.0500	0.00641 0.0165 0.00400 0.00492 0.0516 0.273 0.0585 0.0176 3.66 3.96 0.00232 0.0554	0.00600 0.0100 0.00400 0.00500 0.0500 0.250 0.0500 0.0150 0.0500 0.0400 0.00200 0.0500	0.00658 0.0162 0.00410 0.00450 0.0531 0.266 0.0559 0.0185 3.84 4.09 0.00244 0.0573	107 116 100 98 96 108 106 104 -42 (2) 147 (2) 116 101	110 112 102 90 99 105 101 110 311 (2) 472 (2) 122 104	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	3 2 2 9 3 2 4 5 5 3 5 3	20 20 20 20 20 20 20 20 20 20 20 20

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Zinc	0.0144	0.500	0.514	0.500	0.508	100	99	75-125	1	20
Batch number: 162280639001B	Sample number(s): 8519719-8519736 UNSPK: P516008									
Selenium	0.000573	0.0100	0.0108	0.0100	0.0108	102	102	75-125	0	20
Batch number: 162280639001C	Sample number(s): 8519719-8519736 UNSPK: P516008									
Molybdenum	0.00196	0.0500	0.0570	0.0500	0.0545	110	105	75-125	5	20
Batch number: 162280639001D	Sample number(s): 8519719-8519736 UNSPK: P516008									
Barium	1.63	0.0500	1.73	0.0500	1.67	209 (2)	89 (2)	75-125	4	20
Batch number: 162280639002A	Sample number(s): 8519737-8519754 UNSPK: P512245									
Antimony	N.D.	0.00600	0.00603	0.00600	0.00521	100	87	75-125	15	20
Arsenic	0.000736	0.0100	0.0111	0.0100	0.0110	104	102	75-125	1	20
Beryllium	N.D.	0.00400	0.00424	0.00400	0.00412	106	103	75-125	3	20
Cadmium	N.D.	0.00500	0.00503	0.00500	0.00491	101	98	75-125	2	20
Chromium	0.00185	0.0500	0.0534	0.0500	0.0504	103	97	75-125	6	20
Cobalt	0.000600	0.250	0.235	0.250	0.228	94	91	75-125	3	20
Copper	0.00140	0.0500	0.0507	0.0500	0.0510	99	99	75-125	1	20
Lead	0.000853	0.0150	0.0163	0.0150	0.0160	103	101	75-125	2	20
Manganese	0.0929	0.0500	0.142	0.0500	0.137	97	88	75-125	3	20
Strontium	0.0759	0.0400	0.115	0.0400	0.114	99	95	75-125	1	20
Thallium	N.D.	0.00200	0.00201	0.00200	0.00201	101	100	75-125	0	20
Vanadium	0.00200	0.0500	0.0521	0.0500	0.0515	100	99	75-125	1	20
Zinc	0.00521	0.500	0.489	0.500	0.495	97	98	75-125	1	20
Batch number: 162280639002B	Sample number(s): 8519737-8519754 UNSPK: P512245									
Selenium	N.D.	0.0100	0.0102	0.0100	0.0100	102	100	75-125	1	20
Batch number: 162280639002C	Sample number(s): 8519737-8519754 UNSPK: P512245									
Molybdenum	0.000239	0.0500	0.0489	0.0500	0.0483	97	96	75-125	1	20
Batch number: 162280639002D	Sample number(s): 8519737-8519754 UNSPK: P512245									
Barium	0.0469	0.0500	0.103	0.0500	0.0941	112	94	75-125	9	20
Batch number: 162280639003A	Sample number(s): 8519755-8519758,8519760 UNSPK: P519111									
Antimony	N.D.	0.00600	0.00591	0.00600	0.00566	99	94	75-125	4	20
Arsenic	0.00319	0.0100	0.0130	0.0100	0.0137	98	105	75-125	5	20
Beryllium	0.000250	0.00400	0.00439	0.00400	0.00431	104	101	75-125	2	20
Cadmium	N.D.	0.00500	0.00521	0.00500	0.00517	104	103	75-125	1	20
Chromium	0.00659	0.0500	0.0558	0.0500	0.0557	98	98	75-125	0	20
Cobalt	0.00315	0.250	0.245	0.250	0.247	97	97	75-125	1	20
Copper	0.00944	0.0500	0.0578	0.0500	0.0582	97	98	75-125	1	20
Lead	0.00466	0.0150	0.0204	0.0150	0.0204	105	105	75-125	0	20
Manganese	0.184	0.0500	0.235	0.0500	0.246	101	123	75-125	4	20
Strontium	0.0388	0.0400	0.0800	0.0400	0.0813	103	106	75-125	2	20
Thallium	N.D.	0.00200	0.00211	0.00200	0.00213	105	106	75-125	1	20
Vanadium	0.00651	0.0500	0.0561	0.0500	0.0553	99	98	75-125	2	20
Zinc	0.0701	0.500	0.588	0.500	0.590	104	104	75-125	0	20
Batch number: 162280639003B	Sample number(s): 8519755-8519758,8519760 UNSPK: P519111									

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Selenium	N.D.	0.0100	0.0103	0.0100	0.0101	103	101	75-125	2	20
Batch number: 162280639003C Molybdenum	Sample number(s): 8519755-8519758,8519760 0.000859	0.0500	0.0515	0.0500	0.0525	101	103	75-125	2	20
Batch number: 162280639003D Barium	Sample number(s): 8519755-8519758,8519760 0.0579	0.0500	0.110	0.0500	0.112	104	108	75-125	2	20
Batch number: 162285713002 Mercury	Sample number(s): 8519719-8519736 N.D.	0.00100	0.000911	0.00100	0.000880	91	88	80-120	4	20
Batch number: 162285713003 Mercury	Sample number(s): 8519737-8519754 N.D.	0.00100	0.000890	0.00100	0.000938	89	94	80-120	5	20
Batch number: 162285713004 Mercury	Sample number(s): 8519755-8519758,8519760 N.D.	0.00100	0.000817	0.00100	0.000814	82	81	80-120	0	20
Batch number: 16236298701B	Sample number(s): 8519719,8519721,8519723,8519725,8519727,8519729,8519731,8519733,8519735 UNSPK: P521474									
Total Organic Carbon	5.32	10	15.42			101		91-113		
Batch number: 16236298702A	Sample number(s): 8519737,8519739,8519741,8519743,8519745,8519747,8519749,8519751,8519753 UNSPK: P516335									
Total Organic Carbon	7.84	10	17.89			100		91-113		
Batch number: 16236298702B	Sample number(s): 8519755,8519757 UNSPK: P516336									
Total Organic Carbon	3.95	10	13.95			100		91-113		
Batch number: 16244298701A	Sample number(s): 8519719,8519721,8519723,8519725,8519727,8519729,8519731,8519733,8519735,8519737 UNSPK: 8519719									
Dissolved Organic Carbon	4.91	10	16.11			112		86-114		
Batch number: 16244298701B	Sample number(s): 8519739,8519741,8519743,8519745 UNSPK: 8519739									
Dissolved Organic Carbon	4.70	10	16.21			115*		86-114		
Batch number: 16244987301A	Sample number(s): 8519747,8519749,8519751,8519753,8519755,8519757 UNSPK: P538864									
Dissolved Organic Carbon	5.70	10	14.59			89		86-114		
Batch number: 16258987401A	Sample number(s): 8519759 UNSPK: P559622									
Dissolved Organic Carbon	0.523	10	11.58			111		86-114		
	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3					
Batch number: 16224011201A	Sample number(s): 8519731,8519741,8519743,8519747,8519749,8519755 UNSPK: P519963									
Total Alkalinity to pH 4.5	67.54	188	235.45			89		84-110		
Batch number: 16224011201B	Sample number(s): 8519735 UNSPK: P519963									

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l as CaCO3	MS Spike Added mg/l as CaCO3	MS Conc mg/l as CaCO3	MSD Spike Added mg/l as CaCO3	MSD Conc mg/l as CaCO3	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Total Alkalinity to pH 4.5	67.54	188	235.45			89		84-110		
Batch number: 16224011202A	Sample number(s): 8519719,8519721,8519723,8519725,8519727,8519729,8519733,8519737,8519745,8519757 UNSPK: P519953									
Total Alkalinity to pH 4.5	69.02	188	225.33			83*		84-110		
Batch number: 16224011203A	Sample number(s): 8519739,8519751,8519753 UNSPK: P511105									
Total Alkalinity to pH 4.5	232.36	188	261.27			15*		84-110		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 162280635001	Sample number(s): 8519719-8519736 BKG: P521854			
Boron	0.137	0.136	0 (1)	20
Calcium	24.5	24.77	1	20
Magnesium	11.08	11.2	1	20
Batch number: 162280635002	Sample number(s): 8519737-8519754 BKG: P521855			
Boron	0.142	0.139	2 (1)	20
Calcium	24.79	24.51	1	20
Magnesium	11.21	11.04	2	20
Batch number: 162280635003	Sample number(s): 8519755-8519758,8519760 BKG: P519111			
Boron	0.0163	0.0130	22* (1)	20
Calcium	10.99	11.24	2	20
Magnesium	2.04	1.82	12	20
Batch number: 162280639001A	Sample number(s): 8519719-8519736 BKG: P516008			
Antimony	N.D.	N.D.	0 (1)	20
Arsenic	0.00495	0.00595	18 (1)	20
Beryllium	N.D.	N.D.	0 (1)	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	0.00342	0.00326	5 (1)	20
Cobalt	0.00371	0.00360	3 (1)	20
Copper	0.00538	0.00583	8 (1)	20
Lead	0.00196	0.00196	0 (1)	20
Manganese	3.68	3.68	0	20
Strontium	3.90	3.96	2	20
Thallium	N.D.	N.D.	0 (1)	20
Vanadium	0.00512	0.00520	2	20
Zinc	0.0144	0.0129	11 (1)	20

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 162280639001B Selenium	Sample number(s): 8519719-8519736 BKG: P516008 0.000573	0.000544	5 (1)	20
Batch number: 162280639001C Molybdenum	Sample number(s): 8519719-8519736 BKG: P516008 0.00196	0.00157	22* (1)	20
Batch number: 162280639001D Barium	Sample number(s): 8519719-8519736 BKG: P516008 1.63	1.65	1	20
Batch number: 162280639002A	Sample number(s): 8519737-8519754 BKG: P512245			
Antimony	N.D.	N.D.	0 (1)	20
Arsenic	0.000736	N.D.	200* (1)	20
Beryllium	N.D.	N.D.	0 (1)	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	0.00185	0.00271	38* (1)	20
Cobalt	0.000600	0.000639	6 (1)	20
Copper	0.00140	0.00117	17 (1)	20
Lead	0.000853	0.000878	3 (1)	20
Manganese	0.0929	0.0916	1	20
Strontium	0.0759	0.0732	4	20
Thallium	N.D.	N.D.	0 (1)	20
Vanadium	0.00200	0.00284	35* (1)	20
Zinc	0.00521	0.00435	18 (1)	20
Batch number: 162280639002B Selenium	Sample number(s): 8519737-8519754 BKG: P512245 N.D.	N.D.	0 (1)	20
Batch number: 162280639002C Molybdenum	Sample number(s): 8519737-8519754 BKG: P512245 0.000239	N.D.	200* (1)	20
Batch number: 162280639002D Barium	Sample number(s): 8519737-8519754 BKG: P512245 0.0469	0.0429	9	20
Batch number: 162280639003A	Sample number(s): 8519755-8519758,8519760 BKG: P519111			
Antimony	N.D.	N.D.	0 (1)	20
Arsenic	0.00319	0.00311	2 (1)	20
Beryllium	0.000250	0.000269	7 (1)	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	0.00659	0.00673	2 (1)	20
Cobalt	0.00315	0.00336	6 (1)	20
Copper	0.00944	0.00970	3 (1)	20
Lead	0.00466	0.00487	4 (1)	20
Manganese	0.184	0.186	1	20
Strontium	0.0388	0.0392	1	20
Thallium	N.D.	N.D.	0 (1)	20
Vanadium	0.00651	0.00684	5	20
Zinc	0.0701	0.0758	8 (1)	20
Batch number: 162280639003B Selenium	Sample number(s): 8519755-8519758,8519760 BKG: P519111 N.D.	N.D.	0 (1)	20
Batch number: 162280639003C	Sample number(s): 8519755-8519758,8519760 BKG: P519111			

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Molybdenum	0.000859	0.00101	17 (1)	20
Batch number: 162280639003D	Sample number(s): 8519755-8519758,8519760 BKG: P519111			
Barium	0.0579	0.0592	2	20
Batch number: 162285713002	Sample number(s): 8519719-8519736 BKG: P522168			
Mercury	N.D.	N.D.	0 (1)	20
Batch number: 162285713003	Sample number(s): 8519737-8519754 BKG: 8519746			
Mercury	N.D.	N.D.	0 (1)	20
Batch number: 162285713004	Sample number(s): 8519755-8519758,8519760 BKG: P524872			
Mercury	N.D.	N.D.	0 (1)	20
	mg/l	mg/l		
Batch number: 16236298701B	Sample number(s): 8519719,8519721,8519723,8519725,8519727,8519729,8519731,8519733,8519735 BKG: P521474			
Total Organic Carbon	5.32	5.31	0	3
Batch number: 16236298702A	Sample number(s): 8519737,8519739,8519741,8519743,8519745,8519747,8519749,8519751,8519753 BKG: P516335			
Total Organic Carbon	7.84	7.84	0	3
Batch number: 16236298702B	Sample number(s): 8519755,8519757 BKG: P516336			
Total Organic Carbon	3.95	3.91	1 (1)	3
Batch number: 16244298701A	Sample number(s): 8519719,8519721,8519723,8519725,8519727,8519729,8519731,8519733,8519735,8519737 BKG: 8519719			
Dissolved Organic Carbon	4.91	4.64	6* (1)	2
Batch number: 16244298701B	Sample number(s): 8519739,8519741,8519743,8519745 BKG: 8519739			
Dissolved Organic Carbon	4.70	4.88	4* (1)	2
Batch number: 16244987301A	Sample number(s): 8519747,8519749,8519751,8519753,8519755,8519757 BKG: P538864			
Dissolved Organic Carbon	5.70	5.58	2	2
Batch number: 16258987401A	Sample number(s): 8519759 BKG: P559622			
Dissolved Organic Carbon	0.523	N.D.	200* (1)	2
	mg/l as CaCO3	mg/l as CaCO3		
Batch number: 16224011201A	Sample number(s): 8519731,8519741,8519743,8519747,8519749,8519755 BKG: P519963			
Total Alkalinity to pH 4.5	67.54	67.72	0	5
Batch number: 16224011201B	Sample number(s): 8519735 BKG: 8519735			
Total Alkalinity to pH 4.5	167.66	173.4	3	5
Batch number: 16224011202A	Sample number(s): 8519719,8519721,8519723,8519725,8519727,8519729,8519733,8519737,8519745,8519757 BKG: P519953			

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:30

Group Number: 1693437

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l as CaCO3	DUP Conc mg/l as CaCO3	DUP RPD	DUP RPD Max
Total Alkalinity to pH 4.5	69.02	69.07	0	5
Batch number: 16224011203A	Sample number(s): 8519739,8519751,8519753 BKG: P511105			
Total Alkalinity to pH 4.5	232.36	234.16	1	5

*- Outside of specification

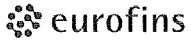
** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody



Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 38268 Group # 1693437 Sample # 8519719-60

COC # 506066

Client Information				Matrix			Analysis Requested					For Lab Use Only		
Client: <u>14578 Illinois state water</u>		Acct. #: <u>14578</u>		<input type="checkbox"/> Tissue	<input type="checkbox"/> Ground	<input checked="" type="checkbox"/> Surface	Preservation Codes					FSC: _____	SCR#: <u>191606</u>	
Project Name/ #: <u>Pond 6</u>		PWSID #: _____					<input type="checkbox"/> Potable	<input type="checkbox"/> NPDES	Total # of Containers	<u>Total Alkalinity</u>	<u>Dissolved Metals +Hg</u>	<u>Total Metals +Hg</u>	<u>D.O.C.</u>	<u>T.O.C.</u>
Project Manager: <u>Mike Mackesky</u>		P.O. #: _____		H=HCl T=Thiosulfate										
Sampler: <u>Mike Mackesky</u>		Quote #: <u>213794A</u>		S=H ₂ SO ₄ O=Other		Remarks <u>Dissolved metals +Hg require filtration</u>								
State where samples were collected: <u>IL</u>		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>												
Sample Identification		Collected		Grab	Composite	Soil	Water	Other:	Total # of Containers	<u>Total Alkalinity</u>	<u>Dissolved Metals +Hg</u>	<u>Total Metals +Hg</u>	<u>D.O.C.</u>	<u>T.O.C.</u>
		Date	Time											
<u>LP21</u>		<u>8/31/16</u>	<u>8:15</u>	<u>X</u>					<u>5</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>LP23</u>			<u>9:20</u>	<u>X</u>					<u>5</u>					
<u>LP41</u>			<u>8:45</u>	<u>X</u>					<u>5</u>					
<u>LP43</u>			<u>9:50</u>	<u>X</u>					<u>5</u>					
<u>LP31</u>			<u>9:15</u>	<u>X</u>					<u>5</u>					
<u>LP33</u>			<u>9:20</u>	<u>X</u>					<u>5</u>					
<u>LP4T</u>			<u>9:40</u>	<u>X</u>					<u>5</u>					
<u>LP1T2</u>			<u>9:45</u>	<u>X</u>					<u>5</u>					
<u>LP1B</u>			<u>9:53</u>	<u>X</u>					<u>5</u>					
<u>LP1B2</u>			<u>9:58</u>	<u>X</u>					<u>5</u>					

Turnaround Time (TAT) Requested (please circle) Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharge.)		Relinquished by: <u>Angela S. Montgomery</u>	Date: <u>7/14/16</u>	Time: <u>13:20</u>	Received by: _____	Date: _____	Time: _____
Date results are needed: _____		Relinquished by: <u>Mike Mackesky</u>	Date: <u>8/19/16</u>	Time: <u>13:00</u>	Received by: _____	Date: _____	Time: _____
E-mail address: <u>mackesky@illinois.edu</u>		Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Data Package Options (circle if required) Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only) Type III (Reduced non-CLP) NJ DKQP TX TRRP-13 NYSDEC Category A or B MA MCP CT RCP		Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
EDD Required? Yes No If yes, format: _____		Relinquished by Commercial Carrier:		UPS _____ FedEx _____ Other _____		Temperature upon receipt <u>4.2-5.0</u> °C	
Site-Specific QC (MS/MSD/Dup)? Yes No (If yes, indicate QC sample and submit triplicate sample volume.)							

Environmental Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 38268 Group # 1693437 Sample # 8519719-60

COC # 506067

Client Information				Matrix			Analysis Requested					For Lab Use Only	
Client: <u>Illinois State Water Survey</u>		Acct. #: <u>14528</u>		<input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Sediment <input type="checkbox"/> Soil <input type="checkbox"/> Other:	Total # of Containers	Preservation Codes					FSC: _____	SCR#: _____	
Project Name/ #: <u>Pord6</u>		PWSID #:				Total Alkalinity Diss. Metals Hg Total Metals Hg D.O.C T.O.C					Preservation Codes		
Project Manager: <u>Mike Machosky</u>		P.O. #:									H=HCl T=Thiosulfate		
Sampler: <u>Mike Machosky</u>		Quote #: <u>213784A</u>		N=HNO ₃ B=NaOH		S=H ₂ SO ₄ O=Other		Remarks					
State where samples were collected: <u>IL</u>		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Diss. Metals + Hg require filtration									
Sample Identification		Collected		Grab	Composite								
		Date	Time										
<u>P61T</u>		<u>9/3/16</u>	<u>11:25</u>	<input checked="" type="checkbox"/>									
<u>P61B</u>			<u>11:30</u>										
<u>P62T</u>			<u>12:25</u>										
<u>P62B</u>			<u>12:30</u>										
<u>P63T</u>			<u>12:50</u>										
<u>P63D</u>			<u>12:53</u>										
<u>P63B</u>			<u>12:59</u>										
<u>P64T</u>			<u>13:50</u>										
<u>P64B</u>			<u>14:02</u>										
<u>P64B2</u>			<u>15:30</u>	<input checked="" type="checkbox"/>									

Turnaround Time (TAT) Requested (please circle) <input checked="" type="radio"/> Standard <input type="radio"/> Rush (Rush TAT is subject to laboratory approval and surcharge.) Date results are needed: _____ E-mail address: <u>Machosky@illinois.edu</u>	Relinquished by	Date	Time	Received by	Date	Time
	Relinquished by	Date	Time	Received by	Date	Time
	Relinquished by	Date	Time	Received by	Date	Time
	Relinquished by	Date	Time	Received by	Date	Time
	Relinquished by	Date	Time	Received by	Date	Time

Data Package Options (circle if required)		
Type I (EPA Level 3 Equivalent/non-CLP)	Type VI (Raw Data Only)	
Type III (Reduced non-CLP)	NJ DKQP	TX TRRP-13
NYSDEC Category A or B	MA MCP	CT RCP

EDD Required? Yes No If yes, format: _____	Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____
Site-Specific QC (MS/MSD/Dup)? Yes No (If yes, indicate QC sample and submit triplicate sample volume.)	Temperature upon receipt <u>12-5.6C</u>

Environmental Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 38268 Group # 1693437 Sample # 8519719-60

COC # 506068

Client Information				Matrix				Analysis Requested				For Lab Use Only							
Client: <u>U.S. Illinois State Water Survey</u>		Acct. #: <u>14578</u>		Soil <input type="checkbox"/>	Sediment <input type="checkbox"/>	Tissue <input type="checkbox"/>	Potable <input type="checkbox"/>	Ground <input type="checkbox"/>	Surface <input checked="" type="checkbox"/>	Preservation Codes				FSC: _____	SCR#: _____				
Project Name/ #: <u>Pond 6</u>		PWSID #:								Total # of Containers <u>2</u> <u>Diab. MetalstHg</u> <u>D.O.C.</u>				Preservation Codes H=HCl T=Thiosulfate N=HNO ₃ B=NaOH S=H ₂ SO ₄ O=Other				Remarks <u>Dissolved Metals</u> <u>+ Hg + D.O.C.</u> <u>require filtration</u>	
Project Manager: <u>Mike Machesky</u>		P.O. #:		Water <input type="checkbox"/>		NPDES <input type="checkbox"/>		Other: _____											
Sampler: <u>Mike Machesky</u>		Quote #: <u>213797A</u>		Grab		Composite		Soil <input type="checkbox"/>		Sediment <input type="checkbox"/>		Tissue <input type="checkbox"/>		Potable <input type="checkbox"/>		Ground <input type="checkbox"/>		Surface <input checked="" type="checkbox"/>	
Sample Identification		Collected		Grab	Composite	Soil	Sediment	Tissue	Water	NPDES	Other	Total # of Containers	Analysis Requested				For Lab Use Only		
Date	Time	Preservation Codes											FSC	SCR					
<u>P6 LB2</u>	<u>9/13/76</u>	<u>15:50</u>										<u>2</u>							
Turnaround Time (TAT) Requested (please circle) Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharge.)				Relinquished by		Date	Time	Received by		Date	Time	Relinquished by		Date	Time	Received by		Date	Time
Date results are needed: _____				Relinquished by		Date	Time	Received by		Date	Time	Relinquished by		Date	Time	Received by		Date	Time
E-mail address: <u>machesky@illinois.edu</u>				Relinquished by		Date	Time	Received by		Date	Time	Relinquished by		Date	Time	Received by		Date	Time
Data Package Options (circle if required) Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only) Type III (Reduced non-CLP) NJ DKQP TX TRRP-13 NYSDEC Category A or B MA MCP CT RCP				Relinquished by		Date	Time	Received by		Date	Time	Relinquished by		Date	Time	Received by		Date	Time
				EDD Required? Yes No If yes, format: _____				Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____				Site-Specific QC (MS/MSD/Dup)? Yes No (If yes, indicate QC sample and submit triplicate sample volume.)				Temperature upon receipt <u>12-5.0</u>			

Client: Illinis state water

Delivery and Receipt Information

Delivery Method: Fed Ex Arrival Timestamp: 08/10/2016 9:30
 Number of Packages: 4 Number of Projects: 1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace \geq 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Karen Diem (3060) at 17:17 on 08/10/2016

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp)* All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	3.2	DT	Wet	Y	Bagged	N
2	DT131	1.2	DT	Wet	Y	Bagged	N
3	DT131	5.0	DT	Wet	Y	Bagged	N
4	DT131	3.7	DT	Wet	Y	Bagged	N

August 9, 2016

Some notes about the processing and analyses requested.

First, my Eurofins contact is Stacy Hess, so please inform her when the samples are received and logged in. Also, please inform me about that as well at, machesky@illinois.edu.

The water samples sent for both dissolved metals + mercury and dissolved organic carbon require filtration. There are 21 samples of each that require this processing step. Also, the 250 mL bottles containing the dissolved metals + Hg samples are clearly marked as requiring filtration.

Three of the submitted sediment samples, P6S3, P6S4, and P6D7 will require homogenization, via some process such as crushing and grinding before they are analyzed. Please contact me about options for those samples if necessary. However, in any event, please let me know how that homogenization was accomplished.

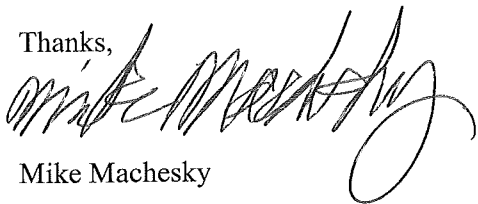
There will be 4 coolers shipped. I noted that some of the sediment sample labels may be working loose. I think they will stay attached OK, but just in case, please also keep track of the black numbers, from 1 through 20, which have been placed on the white lids, at least until you can ensure the labels are secure.

Also, some of the water sample labels, particularly those written in red sharpie may be starting to blur, although the unique sample codes are all readable. Perhaps to ensure all labels are properly recorded, those water samples are grouped in sets of 3 in separate zip-loc bags. Each set contains 3 , 250 mL plastic sample bottles, one for total alkalinity, one for total metals + Hg, and one for dissolved metals + Hg (that one must be filtered). Each set of 3 sample bottles contain the same sample number. So, if the red labeled is partially blurred, the sample identifier can be noted from the other two bottles.

Also, I would like ICP/MS to be used for analyzing the metals in the 20 sediment samples submitted.

If you have any additional questions/concerns about these samples, please contact me via email, office phone (217-333-9322), or cell (217-722-0927).

Thanks,



Mike Machesky

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Appendix D - Analytical results for sediment samples



Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Report Date: September 20, 2016

Project: Pond 6

Submittal Date: 08/10/2016

Group Number: 1693436

PO Number: P1378316

State of Sample Origin: IL

Client Sample Description

	Lancaster Labs (LL) #
P6S1 Sediment	8519699
P6S2 Sediment	8519700
P6S3 Sediment	8519701
P6S4 Sediment	8519702
P6N5 Sediment	8519703
P6N6 Sediment	8519704
P6D7 Sediment	8519705
P6C8 Sediment	8519706
P6C9 Sediment	8519707
P6C10 Sediment	8519708
P6C11 Sediment	8519709
P6C12 Sediment	8519710
P6C13 Sediment	8519711
P6C14 Sediment	8519712
LP2B1 Sediment	8519713
LP4B1 Sediment	8519714
LP4B2 Sediment	8519715
LP3B1 Sediment	8519716
LP1B1 Sediment	8519717
LP1B2 Sediment	8519718

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

Electronic Copy To Illinois State Water Survey

Attn: Mike Machesky

Respectfully Submitted,



Stacy L. Hess
Project Manager

(717) 556-7236

Sample Description: P6S1 Sediment
Pond 6

LL Sample # SW 8519699
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:40 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD601

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270D ug/kg						
10726	Acenaphthene	83-32-9	N.D.	11	58	1
10726	Acenaphthylene	208-96-8	N.D.	11	58	1
10726	Anthracene	120-12-7	N.D.	11	58	1
10726	Benzo(a)anthracene	56-55-3	N.D.	11	58	1
10726	Benzo(a)pyrene	50-32-8	27 J	11	58	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	11	58	1
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	11	58	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	11	58	1
10726	Chrysene	218-01-9	N.D.	11	58	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	11	58	1
10726	Fluoranthene	206-44-0	N.D.	11	58	1
10726	Fluorene	86-73-7	N.D.	11	58	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	11	58	1
10726	Naphthalene	91-20-3	N.D.	11	58	1
10726	Phenanthrene	85-01-8	N.D.	11	58	1
10726	Pyrene	129-00-0	N.D.	11	58	1
Metals SW-846 6010C mg/kg						
07914	Boron	7440-42-8	24.2	1.92	23.1	1
SW-846 6020A mg/kg						
06124	Antimony	7440-36-0	N.D.	0.327	1.33	2
06125	Arsenic	7440-38-2	10.1	0.492	2.67	2
06126	Barium	7440-39-3	104	0.534	2.67	2
06127	Beryllium	7440-41-7	0.936	0.0720	0.667	2
06128	Cadmium	7440-43-9	0.262 J	0.129	0.667	2
06129	Calcium	7440-70-2	21,800	65.4	267	2
06131	Chromium	7440-47-3	20.6	0.394	2.67	2
06132	Cobalt	7440-48-4	8.82	0.134	0.667	2
06133	Copper	7440-50-8	16.0	0.336	2.67	2
06135	Lead	7439-92-1	19.6	0.0974	1.33	2
06136	Magnesium	7439-95-4	7,070	7.87	133	2
06137	Manganese	7439-96-5	727	0.586	2.67	2
06138	Molybdenum	7439-98-7	1.07	0.153	0.667	2
06141	Selenium	7782-49-2	0.729 J	0.291	2.67	2
06144	Strontium	7440-24-6	34.6	0.255	1.33	2
06145	Thallium	7440-28-0	0.322 J	0.0967	0.667	2
06148	Vanadium	7440-62-2	36.4	0.126	0.667	2
06149	Zinc	7440-66-6	91.0	4.22	20.0	2
SW-846 7471B mg/kg						
00159	Mercury	7439-97-6	0.0585 J	0.0335	0.335	1
Wet Chemistry SM 5310 B modified-2000 mg/kg						
02079	TOC Solids/Sludges Combustion	n.a.	31,100	2,760	8,270	1
Wet Chemistry SM 2540 G-1997 %						
00111	Moisture	n.a.	70.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: P6S1 Sediment
Pond 6

LL Sample # SW 8519699
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:40 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD601

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 08:48	Joseph M Gambler	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:28	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 21:41	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 21:41	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 02:55	Tara L Snyder	2
06137	Manganese	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 21:41	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 21:41	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 21:41	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:16	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16243298731B	08/30/2016 20:53	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6S2 Sediment
Pond 6

LL Sample # SW 8519700
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:40 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD602

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	12	60	1
10726	Acenaphthylene	208-96-8	N.D.	12	60	1
10726	Anthracene	120-12-7	N.D.	12	60	1
10726	Benzo(a)anthracene	56-55-3	N.D.	12	60	1
10726	Benzo(a)pyrene	50-32-8	N.D.	12	60	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	12	60	1
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	12	60	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	12	60	1
10726	Chrysene	218-01-9	N.D.	12	60	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	12	60	1
10726	Fluoranthene	206-44-0	N.D.	12	60	1
10726	Fluorene	86-73-7	N.D.	12	60	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	12	60	1
10726	Naphthalene	91-20-3	N.D.	12	60	1
10726	Phenanthrene	85-01-8	N.D.	12	60	1
10726	Pyrene	129-00-0	N.D.	12	60	1
Metals		SW-846 6010C	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	26.1 J	2.62	31.5	1
		SW-846 6020A	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.263 J	0.244	0.995	2
06125	Arsenic	7440-38-2	12.9	0.367	1.99	2
06126	Barium	7440-39-3	130	0.398	1.99	2
06127	Beryllium	7440-41-7	1.15	0.0538	0.498	2
06128	Cadmium	7440-43-9	0.299 J	0.0966	0.498	2
06129	Calcium	7440-70-2	26,200	48.8	199	2
06131	Chromium	7440-47-3	25.2	0.294	1.99	2
06132	Cobalt	7440-48-4	10.7	0.100	0.498	2
06133	Copper	7440-50-8	19.8	0.251	1.99	2
06135	Lead	7439-92-1	23.8	0.0727	0.995	2
06136	Magnesium	7439-95-4	8,970	14.7	249	5
06137	Manganese	7439-96-5	886	1.09	4.98	5
06138	Molybdenum	7439-98-7	1.03	0.114	0.498	2
06141	Selenium	7782-49-2	0.808 J	0.217	1.99	2
06144	Strontium	7440-24-6	44.0	0.191	0.995	2
06145	Thallium	7440-28-0	0.408 J	0.0722	0.498	2
06148	Vanadium	7440-62-2	45.1	0.0941	0.498	2
06149	Zinc	7440-66-6	110	3.15	14.9	2
		SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0560 J	0.0342	0.342	1
Wet Chemistry		SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg	
02079	TOC Solids/Sludges Combustion	n.a.	29,300	3,240	9,710	1
Wet Chemistry		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	71.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: P6S2 Sediment
Pond 6

LL Sample # SW 8519700
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:40 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD602

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 09:11	Joseph M Gambler	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:37	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 21:59	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 21:59	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:05	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:05	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 21:59	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 21:59	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 21:59	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:26	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16243298731B	08/30/2016 22:17	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6S3 Sediment
Pond 6

LL Sample # SW 8519701
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:50 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD603

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	500	19	95	5
10726	Acenaphthylene	208-96-8	170	19	95	5
10726	Anthracene	120-12-7	370	19	95	5
10726	Benzo(a)anthracene	56-55-3	480	19	95	5
10726	Benzo(a)pyrene	50-32-8	190	19	95	5
10726	Benzo(b)fluoranthene	205-99-2	240	19	95	5
10726	Benzo(g,h,i)perylene	191-24-2	44	J	19	5
10726	Benzo(k)fluoranthene	207-08-9	82	J	19	5
10726	Chrysene	218-01-9	520	19	95	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	19	95	5
10726	Fluoranthene	206-44-0	800	19	95	5
10726	Fluorene	86-73-7	230	19	95	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	53	J	19	5
10726	Naphthalene	91-20-3	5,100	19	95	5
10726	Phenanthrene	85-01-8	7,200	19	95	5
10726	Pyrene	129-00-0	1,000	19	95	5

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg			
07914	Boron	7440-42-8	79.7	0.775	9.34	1	
	SW-846 6020A	mg/kg	mg/kg	mg/kg			
06124	Antimony	7440-36-0	N.D.	0.0925	0.377	2	
06125	Arsenic	7440-38-2	1.14	0.139	0.753	2	
06126	Barium	7440-39-3	4.14	0.151	0.753	2	
06127	Beryllium	7440-41-7	1.22	0.0203	0.188	2	
06128	Cadmium	7440-43-9	N.D.	0.0365	0.188	2	
06129	Calcium	7440-70-2	515	18.5	75.3	2	
06131	Chromium	7440-47-3	7.17	0.111	0.753	2	
06132	Cobalt	7440-48-4	0.395	0.0379	0.188	2	
06133	Copper	7440-50-8	3.08	0.0949	0.753	2	
06135	Lead	7439-92-1	2.59	0.0275	0.377	2	
06136	Magnesium	7439-95-4	97.7	2.22	37.7	2	
06137	Manganese	7439-96-5	4.78	0.166	0.753	2	
06138	Molybdenum	7439-98-7	2.87	0.0433	0.188	2	
06141	Selenium	7782-49-2	1.04	0.0823	0.753	2	
06144	Strontium	7440-24-6	7.17	0.0721	0.377	2	
06145	Thallium	7440-28-0	0.926	0.0273	0.188	2	
06148	Vanadium	7440-62-2	10.1	0.0356	0.188	2	
06149	Zinc	7440-66-6	3.67	J	1.19	5.65	2
	SW-846 7471B	mg/kg	mg/kg	mg/kg			
00159	Mercury	7439-97-6	0.0379	J	0.0106	0.106	1

*=This limit was used in the evaluation of the final result

Sample Description: P6S3 Sediment
Pond 6

LL Sample # SW 8519701
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:50 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD603

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SM 5310 B modified-2000			mg/kg	mg/kg	mg/kg	
02079	TOC Solids/Sludges Combustion The holding time was not met.	n.a.	517,000	15,900	47,700	1
Wet Chemistry SM 2540 G-1997			%	%	%	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	11.5	0.50	0.50	1

Sample Comments

Additional sample volume received on 09/01/16 for boron. Sample was collected on 08/3/16 at 11:50 by MM.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 09:35	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162530637001	09/11/2016 16:02	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06125	Arsenic	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06126	Barium	SW-846 6020A	1	162280637001D	08/22/2016 00:06	Tara L Snyder	2
06127	Beryllium	SW-846 6020A	1	162280637001A	08/22/2016 10:17	Scott P Cuff	2
06128	Cadmium	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06129	Calcium	SW-846 6020A	1	162280637001B	08/22/2016 00:06	Tara L Snyder	2
06131	Chromium	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06132	Cobalt	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06133	Copper	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06135	Lead	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06136	Magnesium	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06137	Manganese	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06138	Molybdenum	SW-846 6020A	1	162280637001C	08/22/2016 10:17	Scott P Cuff	2
06141	Selenium	SW-846 6020A	1	162280637001B	08/19/2016 00:47	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06145	Thallium	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06148	Vanadium	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
06149	Zinc	SW-846 6020A	1	162280637001A	08/22/2016 00:06	Tara L Snyder	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:28	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162280637001	08/15/2016 16:25	JoElla L Rice	1

*=This limit was used in the evaluation of the final result

Sample Description: P6S3 Sediment
Pond 6

LL Sample # SW 8519701
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:50 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD603

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162530637001	09/09/2016 17:20	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16251298731B	09/07/2016 21:01	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6S4 Sediment
Pond 6

LL Sample # SW 8519702
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:50 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD604

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor	
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg		
10726	Acenaphthene	83-32-9	630	19	97	5	
10726	Acenaphthylene	208-96-8	210	19	97	5	
10726	Anthracene	120-12-7	380	19	97	5	
10726	Benzo(a)anthracene	56-55-3	480	19	97	5	
10726	Benzo(a)pyrene	50-32-8	160	19	97	5	
10726	Benzo(b)fluoranthene	205-99-2	190	19	97	5	
10726	Benzo(g,h,i)perylene	191-24-2	34	J	19	5	
10726	Benzo(k)fluoranthene	207-08-9	64	J	19	5	
10726	Chrysene	218-01-9	560	19	97	5	
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	19	97	5	
10726	Fluoranthene	206-44-0	930	19	97	5	
10726	Fluorene	86-73-7	250	19	97	5	
10726	Indeno(1,2,3-cd)pyrene	193-39-5	24	J	19	5	
10726	Naphthalene	91-20-3	9,300	19	97	5	
10726	Phenanthrene	85-01-8	10,000	19	97	5	
10726	Pyrene	129-00-0	1,100	19	97	5	
Metals		SW-846 6010C	mg/kg	mg/kg	mg/kg		
07914	Boron	7440-42-8	82.7	0.918	11.1	1	
		SW-846 6020A	mg/kg	mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.116	J	0.0924	0.377	2
06125	Arsenic	7440-38-2	2.23		0.139	0.753	2
06126	Barium	7440-39-3	5.74		0.151	0.753	2
06127	Beryllium	7440-41-7	0.686		0.0203	0.188	2
06128	Cadmium	7440-43-9	N.D.		0.0365	0.188	2
06129	Calcium	7440-70-2	434		18.5	75.3	2
06131	Chromium	7440-47-3	3.52		0.111	0.753	2
06132	Cobalt	7440-48-4	0.282		0.0378	0.188	2
06133	Copper	7440-50-8	2.36		0.0949	0.753	2
06135	Lead	7439-92-1	3.35		0.0275	0.377	2
06136	Magnesium	7439-95-4	79.4		2.22	37.7	2
06137	Manganese	7439-96-5	3.36		0.165	0.753	2
06138	Molybdenum	7439-98-7	1.84		0.0433	0.188	2
06141	Selenium	7782-49-2	0.714	J	0.0823	0.753	2
06144	Strontium	7440-24-6	5.50		0.0721	0.377	2
06145	Thallium	7440-28-0	0.518		0.0273	0.188	2
06148	Vanadium	7440-62-2	5.45		0.0356	0.188	2
06149	Zinc	7440-66-6	2.00	J	1.19	5.65	2
		SW-846 7471B	mg/kg	mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0312	J	0.0112	0.112	1
Wet Chemistry		SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg		
02079	TOC Solids/Sludges Combustion	n.a.	410,000		13,400	40,200	1
Wet Chemistry		SM 2540 G-1997	%	%	%		
00111	Moisture	n.a.	12.2		0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: P6S4 Sediment
Pond 6

LL Sample # SW 8519702
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 11:50 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD604

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 09:58	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:55	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:02	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:02	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:07	Tara L Snyder	2
06137	Manganese	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:02	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:02	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:02	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:30	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16243298731B	08/31/2016 00:31	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6N5 Sediment
Pond 6

LL Sample # SW 8519703
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 14:10 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD605

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	40	210	5
10726	Acenaphthylene	208-96-8	N.D.	40	210	5
10726	Anthracene	120-12-7	N.D.	40	210	5
10726	Benzo(a)anthracene	56-55-3	N.D.	40	210	5
10726	Benzo(a)pyrene	50-32-8	N.D.	40	210	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	40	210	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	40	210	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	40	210	5
10726	Chrysene	218-01-9	N.D.	40	210	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	40	210	5
10726	Fluoranthene	206-44-0	N.D.	40	210	5
10726	Fluorene	86-73-7	N.D.	40	210	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	40	210	5
10726	Naphthalene	91-20-3	N.D.	40	210	5
10726	Phenanthrene	85-01-8	N.D.	40	210	5
10726	Pyrene	129-00-0	N.D.	40	210	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg
07914 Boron	7440-42-8	20.4 J	1.98	23.9
	SW-846 6020A	mg/kg	mg/kg	mg/kg
06124 Antimony	7440-36-0	0.255 J	0.232	0.945
06125 Arsenic	7440-38-2	6.05	0.349	1.89
06126 Barium	7440-39-3	76.3	0.378	1.89
06127 Beryllium	7440-41-7	0.778	0.0510	0.472
06128 Cadmium	7440-43-9	0.207 J	0.0917	0.472
06129 Calcium	7440-70-2	28,400	46.3	189
06131 Chromium	7440-47-3	21.5	0.279	1.89
06132 Cobalt	7440-48-4	8.72	0.0950	0.472
06133 Copper	7440-50-8	16.0	0.238	1.89
06135 Lead	7439-92-1	16.0	0.0690	0.945
06136 Magnesium	7439-95-4	9,800	5.57	94.5
06137 Manganese	7439-96-5	574	0.415	1.89
06138 Molybdenum	7439-98-7	0.952	0.109	0.472
06141 Selenium	7782-49-2	0.638 J	0.206	1.89
06144 Strontium	7440-24-6	33.5	0.181	0.945
06145 Thallium	7440-28-0	0.255 J	0.0685	0.472
06148 Vanadium	7440-62-2	32.6	0.0893	0.472
06149 Zinc	7440-66-6	79.8	2.99	14.2
	SW-846 7471B	mg/kg	mg/kg	mg/kg
00159 Mercury	7439-97-6	0.0324 J	0.0232	0.232

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg
02079 TOC Solids/Sludges Combustion	n.a.	14,400	1,690	5,080

Wet Chemistry	SM 2540 G-1997	%	%	%
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*=This limit was used in the evaluation of the final result

Sample Description: P6N5 Sediment
Pond 6

LL Sample # SW 8519703
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 14:10 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD605

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SM 2540 G-1997						
00111	Moisture	n.a.	58.9	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 10:21	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:06	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:11	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:11	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:12	Tara L Snyder	2
06137	Manganese	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:11	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:11	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:11	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:36	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16243298731B	08/30/2016 23:11	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6N6 Sediment
Pond 6

LL Sample # SW 8519704
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 14:10 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD606

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	39	200	5
10726	Acenaphthylene	208-96-8	N.D.	39	200	5
10726	Anthracene	120-12-7	N.D.	39	200	5
10726	Benzo(a)anthracene	56-55-3	N.D.	39	200	5
10726	Benzo(a)pyrene	50-32-8	N.D.	39	200	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	39	200	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	39	200	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	39	200	5
10726	Chrysene	218-01-9	N.D.	39	200	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	39	200	5
10726	Fluoranthene	206-44-0	N.D.	39	200	5
10726	Fluorene	86-73-7	N.D.	39	200	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	39	200	5
10726	Naphthalene	91-20-3	N.D.	39	200	5
10726	Phenanthrene	85-01-8	N.D.	39	200	5
10726	Pyrene	129-00-0	N.D.	39	200	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg
07914 Boron	7440-42-8	16.8 J	1.48	17.8
	SW-846 6020A	mg/kg	mg/kg	mg/kg
06124 Antimony	7440-36-0	N.D.	0.175	0.713
06125 Arsenic	7440-38-2	6.89	0.263	1.43
06126 Barium	7440-39-3	82.1	0.285	1.43
06127 Beryllium	7440-41-7	0.796	0.0385	0.356
06128 Cadmium	7440-43-9	0.226 J	0.0691	0.356
06129 Calcium	7440-70-2	32,000	35.0	143
06131 Chromium	7440-47-3	22.3	0.211	1.43
06132 Cobalt	7440-48-4	9.75	0.0716	0.356
06133 Copper	7440-50-8	18.6	0.180	1.43
06135 Lead	7439-92-1	18.3	0.0520	0.713
06136 Magnesium	7439-95-4	11,100	10.5	178
06137 Manganese	7439-96-5	645	0.783	3.56
06138 Molybdenum	7439-98-7	1.11	0.0820	0.356
06141 Selenium	7782-49-2	0.719 J	0.156	1.43
06144 Strontium	7440-24-6	38.0	0.136	0.713
06145 Thallium	7440-28-0	0.285 J	0.0517	0.356
06148 Vanadium	7440-62-2	34.2	0.0673	0.356
06149 Zinc	7440-66-6	89.2	2.25	10.7
	SW-846 7471B	mg/kg	mg/kg	mg/kg
00159 Mercury	7439-97-6	0.0374 J	0.0219	0.219

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg
02079 TOC Solids/Sludges Combustion	n.a.	15,900	1,870	5,620

Wet Chemistry	SM 2540 G-1997	%	%	%
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*=This limit was used in the evaluation of the final result

Sample Description: P6N6 Sediment
Pond 6

LL Sample # SW 8519704
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/03/2016 14:10 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD606

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	57.8	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 07:34	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:40	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:14	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:14	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:13	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:13	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:14	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:14	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:14	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:38	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16243298731B	08/30/2016 23:25	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6D7 Sediment
Pond 6

LL Sample # SW 8519705
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:15 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD607

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	5	26	1
10726	Acenaphthylene	208-96-8	N.D.	5	26	1
10726	Anthracene	120-12-7	N.D.	5	26	1
10726	Benzo(a)anthracene	56-55-3	N.D.	5	26	1
10726	Benzo(a)pyrene	50-32-8	N.D.	5	26	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	5	26	1
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	5	26	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	5	26	1
10726	Chrysene	218-01-9	N.D.	5	26	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	5	26	1
10726	Fluoranthene	206-44-0	N.D.	5	26	1
10726	Fluorene	86-73-7	N.D.	5	26	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	5	26	1
10726	Naphthalene	91-20-3	N.D.	5	26	1
10726	Phenanthrene	85-01-8	N.D.	5	26	1
10726	Pyrene	129-00-0	N.D.	5	26	1
Metals		SW-846 6010C	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	103	1.10	13.3	1
		SW-846 6020A	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	2.48	0.144	0.586	2
06125	Arsenic	7440-38-2	12.1	0.216	1.17	2
06126	Barium	7440-39-3	715	0.586	2.93	5
06127	Beryllium	7440-41-7	5.82	0.0316	0.293	2
06128	Cadmium	7440-43-9	1.39	0.0568	0.293	2
06129	Calcium	7440-70-2	110,000	71.9	293	5
06131	Chromium	7440-47-3	44.5	0.173	1.17	2
06132	Cobalt	7440-48-4	18.1	0.0589	0.293	2
06133	Copper	7440-50-8	29.9	0.148	1.17	2
06135	Lead	7439-92-1	76.1	0.0428	0.586	2
06136	Magnesium	7439-95-4	13,600	8.64	146	5
06137	Manganese	7439-96-5	400	0.258	1.17	2
06138	Molybdenum	7439-98-7	6.07	0.0674	0.293	2
06141	Selenium	7782-49-2	1.67	0.128	1.17	2
06144	Strontium	7440-24-6	152	0.112	0.586	2
06145	Thallium	7440-28-0	0.521	0.0425	0.293	2
06148	Vanadium	7440-62-2	274	0.0554	0.293	2
06149	Zinc	7440-66-6	345	1.85	8.79	2
		SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0775 J	0.0147	0.147	1
Wet Chemistry		SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg	
02079	TOC Solids/Sludges Combustion	n.a.	52,600	1,100	3,290	1
Wet Chemistry		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	36.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: P6D7 Sediment
Pond 6

LL Sample # SW 8519705
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:15 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD607

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 10:44	Joseph M Gambler	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:43	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/22/2016 03:15	Tara L Snyder	5
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/22/2016 03:15	Tara L Snyder	5
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:15	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:17	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:17	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:17	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:40	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16243298731B	08/30/2016 23:33	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6C8 Sediment
Pond 6

LL Sample # SW 8519706
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:35 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD608

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	33	170	5
10726	Acenaphthylene	208-96-8	N.D.	33	170	5
10726	Anthracene	120-12-7	N.D.	33	170	5
10726	Benzo(a)anthracene	56-55-3	N.D.	33	170	5
10726	Benzo(a)pyrene	50-32-8	N.D.	33	170	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	33	170	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	33	170	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	33	170	5
10726	Chrysene	218-01-9	N.D.	33	170	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	33	170	5
10726	Fluoranthene	206-44-0	N.D.	33	170	5
10726	Fluorene	86-73-7	N.D.	33	170	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	33	170	5
10726	Naphthalene	91-20-3	N.D.	33	170	5
10726	Phenanthrene	85-01-8	N.D.	33	170	5
10726	Pyrene	129-00-0	N.D.	33	170	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg		
07914	Boron	7440-42-8	14.0 J	1.24	15.0	1
	SW-846 6020A	mg/kg	mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.223 J	0.149	0.608	2
06125	Arsenic	7440-38-2	7.54	0.224	1.22	2
06126	Barium	7440-39-3	89.3	0.243	1.22	2
06127	Beryllium	7440-41-7	0.897	0.0328	0.304	2
06128	Cadmium	7440-43-9	0.265 J	0.0590	0.304	2
06129	Calcium	7440-70-2	19,500	29.8	122	2
06131	Chromium	7440-47-3	20.7	0.180	1.22	2
06132	Cobalt	7440-48-4	10.7	0.0611	0.304	2
06133	Copper	7440-50-8	17.5	0.153	1.22	2
06135	Lead	7439-92-1	19.1	0.0444	0.608	2
06136	Magnesium	7439-95-4	9,290	8.97	152	5
06137	Manganese	7439-96-5	678	0.668	3.04	5
06138	Molybdenum	7439-98-7	0.999	0.0699	0.304	2
06141	Selenium	7782-49-2	0.595 J	0.133	1.22	2
06144	Strontium	7440-24-6	30.0	0.116	0.608	2
06145	Thallium	7440-28-0	0.256 J	0.0441	0.304	2
06148	Vanadium	7440-62-2	34.7	0.0575	0.304	2
06149	Zinc	7440-66-6	97.1	1.92	9.12	2
	SW-846 7471B	mg/kg	mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0444 J	0.0196	0.196	1

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg		
02079	TOC Solids/Sludges Combustion	n.a.	23,500	1,230	3,690	1

Wet Chemistry	SM 2540 G-1997	%	%	%
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*=This limit was used in the evaluation of the final result

Sample Description: P6C8 Sediment
Pond 6

LL Sample # SW 8519706
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:35 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD608

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	49.0	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 11:08	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:46	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:20	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:20	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:17	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:17	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:20	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:20	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:20	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:42	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16243298731B	08/30/2016 23:51	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6C9 Sediment
Pond 6

LL Sample # SW 8519707
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:35 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD609

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	32	160	5
10726	Acenaphthylene	208-96-8	N.D.	32	160	5
10726	Anthracene	120-12-7	N.D.	32	160	5
10726	Benzo(a)anthracene	56-55-3	N.D.	32	160	5
10726	Benzo(a)pyrene	50-32-8	N.D.	32	160	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	32	160	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	32	160	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	32	160	5
10726	Chrysene	218-01-9	N.D.	32	160	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	32	160	5
10726	Fluoranthene	206-44-0	N.D.	32	160	5
10726	Fluorene	86-73-7	N.D.	32	160	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	32	160	5
10726	Naphthalene	91-20-3	N.D.	32	160	5
10726	Phenanthrene	85-01-8	33 J	32	160	5
10726	Pyrene	129-00-0	N.D.	32	160	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	14.2	1.16	14.0 1
	SW-846 6020A	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.179 J	0.167	0.679 2
06125	Arsenic	7440-38-2	7.13	0.250	1.36 2
06126	Barium	7440-39-3	76.6	0.271	1.36 2
06127	Beryllium	7440-41-7	0.754	0.0366	0.339 2
06128	Cadmium	7440-43-9	0.245 J	0.0658	0.339 2
06129	Calcium	7440-70-2	18,100	33.3	136 2
06131	Chromium	7440-47-3	18.1	0.201	1.36 2
06132	Cobalt	7440-48-4	9.49	0.0682	0.339 2
06133	Copper	7440-50-8	15.7	0.171	1.36 2
06135	Lead	7439-92-1	17.2	0.0495	0.679 2
06136	Magnesium	7439-95-4	8,060	10.0	170 5
06137	Manganese	7439-96-5	607	0.746	3.39 5
06138	Molybdenum	7439-98-7	0.842	0.0780	0.339 2
06141	Selenium	7782-49-2	0.598 J	0.148	1.36 2
06144	Strontium	7440-24-6	26.4	0.130	0.679 2
06145	Thallium	7440-28-0	0.197 J	0.0492	0.339 2
06148	Vanadium	7440-62-2	30.4	0.0641	0.339 2
06149	Zinc	7440-66-6	86.3	2.14	10.2 2
	SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0356 J	0.0181	0.181 1

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg	
02079	TOC Solids/Sludges Combustion	n.a.	20,400	1,620	4,860 1

Wet Chemistry	SM 2540 G-1997	%	%	%	
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*=This limit was used in the evaluation of the final result

Sample Description: P6C9 Sediment
Pond 6

LL Sample # SW 8519707
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:35 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD609

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SM 2540 G-1997						
00111	Moisture	n.a.	48.3	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 11:31	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:50	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:23	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:23	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:18	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:18	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:23	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:23	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:23	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:44	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16243298731B	08/31/2016 00:06	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6C10 Sediment
Pond 6

LL Sample # SW 8519708
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:43 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD610

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	30	150	5
10726	Acenaphthylene	208-96-8	N.D.	30	150	5
10726	Anthracene	120-12-7	N.D.	30	150	5
10726	Benzo(a)anthracene	56-55-3	N.D.	30	150	5
10726	Benzo(a)pyrene	50-32-8	N.D.	30	150	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	30	150	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	30	150	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	30	150	5
10726	Chrysene	218-01-9	N.D.	30	150	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	30	150	5
10726	Fluoranthene	206-44-0	N.D.	30	150	5
10726	Fluorene	86-73-7	N.D.	30	150	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	30	150	5
10726	Naphthalene	91-20-3	N.D.	30	150	5
10726	Phenanthrene	85-01-8	32 J	30	150	5
10726	Pyrene	129-00-0	N.D.	30	150	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg
07914 Boron	7440-42-8	15.9 J	1.38	16.6
	SW-846 6020A	mg/kg	mg/kg	mg/kg
06124 Antimony	7440-36-0	0.230 J	0.125	0.510
06125 Arsenic	7440-38-2	7.48	0.188	1.02
06126 Barium	7440-39-3	94.7	0.204	1.02
06127 Beryllium	7440-41-7	0.855	0.0276	0.255
06128 Cadmium	7440-43-9	0.275	0.0495	0.255
06129 Calcium	7440-70-2	19,600	25.0	102
06131 Chromium	7440-47-3	19.7	0.151	1.02
06132 Cobalt	7440-48-4	10.2	0.0513	0.255
06133 Copper	7440-50-8	17.2	0.129	1.02
06135 Lead	7439-92-1	19.2	0.0373	0.510
06136 Magnesium	7439-95-4	8,640	7.53	128
06137 Manganese	7439-96-5	651	0.561	2.55
06138 Molybdenum	7439-98-7	0.899	0.0587	0.255
06141 Selenium	7782-49-2	0.573 J	0.112	1.02
06144 Strontium	7440-24-6	29.7	0.0977	0.510
06145 Thallium	7440-28-0	0.200 J	0.0370	0.255
06148 Vanadium	7440-62-2	34.6	0.0482	0.255
06149 Zinc	7440-66-6	96.3	1.61	7.65
	SW-846 7471B	mg/kg	mg/kg	mg/kg
00159 Mercury	7439-97-6	0.0411 J	0.0173	0.173

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg
02079 TOC Solids/Sludges Combustion	n.a.	17,900	1,300	3,910

Wet Chemistry	SM 2540 G-1997	%	%	%
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*=This limit was used in the evaluation of the final result

Sample Description: P6C10 Sediment
Pond 6

LL Sample # SW 8519708
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:43 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD610

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	44.8	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 11:55	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:53	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:26	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:26	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:20	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:20	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:26	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:26	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:26	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:46	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 18:01	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008A	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6C11 Sediment
Pond 6

LL Sample # SW 8519709
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:55 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD611

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	31	160	5
10726	Acenaphthylene	208-96-8	N.D.	31	160	5
10726	Anthracene	120-12-7	N.D.	31	160	5
10726	Benzo(a)anthracene	56-55-3	N.D.	31	160	5
10726	Benzo(a)pyrene	50-32-8	N.D.	31	160	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	31	160	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	31	160	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	31	160	5
10726	Chrysene	218-01-9	N.D.	31	160	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	31	160	5
10726	Fluoranthene	206-44-0	N.D.	31	160	5
10726	Fluorene	86-73-7	N.D.	31	160	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	31	160	5
10726	Naphthalene	91-20-3	35 J	31	160	5
10726	Phenanthrene	85-01-8	42 J	31	160	5
10726	Pyrene	129-00-0	N.D.	31	160	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg	
07914 Boron	7440-42-8	15.7	1.25	15.1	1
	SW-846 6020A	mg/kg	mg/kg	mg/kg	
06124 Antimony	7440-36-0	0.175 J	0.132	0.536	2
06125 Arsenic	7440-38-2	8.25	0.198	1.07	2
06126 Barium	7440-39-3	105	0.214	1.07	2
06127 Beryllium	7440-41-7	0.899	0.0289	0.268	2
06128 Cadmium	7440-43-9	0.268 J	0.0520	0.268	2
06129 Calcium	7440-70-2	20,300	26.3	107	2
06131 Chromium	7440-47-3	21.6	0.158	1.07	2
06132 Cobalt	7440-48-4	11.6	0.0539	0.268	2
06133 Copper	7440-50-8	19.1	0.135	1.07	2
06135 Lead	7439-92-1	21.0	0.0391	0.536	2
06136 Magnesium	7439-95-4	9,240	7.90	134	5
06137 Manganese	7439-96-5	821	0.589	2.68	5
06138 Molybdenum	7439-98-7	0.970	0.0616	0.268	2
06141 Selenium	7782-49-2	0.554 J	0.117	1.07	2
06144 Strontium	7440-24-6	30.8	0.103	0.536	2
06145 Thallium	7440-28-0	0.235 J	0.0389	0.268	2
06148 Vanadium	7440-62-2	36.5	0.0506	0.268	2
06149 Zinc	7440-66-6	109	1.69	8.04	2
	SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159 Mercury	7439-97-6	N.D.	0.0180	0.180	1

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg	
02079 TOC Solids/Sludges Combustion	n.a.	20,200	1,720	5,160	1

Wet Chemistry	SM 2540 G-1997	%	%	%	
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*=This limit was used in the evaluation of the final result

Sample Description: P6C11 Sediment
Pond 6

LL Sample # SW 8519709
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:55 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD611

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	47.8	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 12:19	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:56	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:29	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:29	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:22	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:22	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:29	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:29	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:29	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:48	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 18:30	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6C12 Sediment
Pond 6

LL Sample # SW 8519710
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:55 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD612

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	32	160	5
10726	Acenaphthylene	208-96-8	N.D.	32	160	5
10726	Anthracene	120-12-7	N.D.	32	160	5
10726	Benzo(a)anthracene	56-55-3	N.D.	32	160	5
10726	Benzo(a)pyrene	50-32-8	N.D.	32	160	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	32	160	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	32	160	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	32	160	5
10726	Chrysene	218-01-9	N.D.	32	160	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	32	160	5
10726	Fluoranthene	206-44-0	N.D.	32	160	5
10726	Fluorene	86-73-7	N.D.	32	160	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	32	160	5
10726	Naphthalene	91-20-3	37 J	32	160	5
10726	Phenanthrene	85-01-8	33 J	32	160	5
10726	Pyrene	129-00-0	N.D.	32	160	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg
07914 Boron	7440-42-8	16.2 J	1.40	16.9
	SW-846 6020A	mg/kg	mg/kg	mg/kg
06124 Antimony	7440-36-0	0.231 J	0.152	0.619
06125 Arsenic	7440-38-2	7.29	0.229	1.24
06126 Barium	7440-39-3	106	0.248	1.24
06127 Beryllium	7440-41-7	0.881	0.0334	0.310
06128 Cadmium	7440-43-9	0.299 J	0.0601	0.310
06129 Calcium	7440-70-2	19,400	30.4	124
06131 Chromium	7440-47-3	21.1	0.183	1.24
06132 Cobalt	7440-48-4	10.7	0.0623	0.310
06133 Copper	7440-50-8	17.8	0.156	1.24
06135 Lead	7439-92-1	20.1	0.0452	0.619
06136 Magnesium	7439-95-4	8,690	9.14	155
06137 Manganese	7439-96-5	757	0.681	3.10
06138 Molybdenum	7439-98-7	0.880	0.0712	0.310
06141 Selenium	7782-49-2	0.541 J	0.135	1.24
06144 Strontium	7440-24-6	30.0	0.119	0.619
06145 Thallium	7440-28-0	0.248 J	0.0449	0.310
06148 Vanadium	7440-62-2	35.3	0.0585	0.310
06149 Zinc	7440-66-6	98.6	1.96	9.29

	SW-846 7471B	mg/kg	mg/kg	mg/kg
00159 Mercury	7439-97-6	0.0440 J	0.0179	0.179

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg
02079 TOC Solids/Sludges Combustion	n.a.	19,900	1,130	3,390

Wet Chemistry	SM 2540 G-1997	%	%	%
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*=This limit was used in the evaluation of the final result

Sample Description: P6C12 Sediment
Pond 6

LL Sample # SW 8519710
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 07:55 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD612

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	47.5	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 12:43	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 01:59	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:32	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:32	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:23	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:23	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:32	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:32	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:32	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:50	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 18:38	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6C13 Sediment
Pond 6

LL Sample # SW 8519711
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 08:05 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD613

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	32	170	5
10726	Acenaphthylene	208-96-8	N.D.	32	170	5
10726	Anthracene	120-12-7	N.D.	32	170	5
10726	Benzo(a)anthracene	56-55-3	N.D.	32	170	5
10726	Benzo(a)pyrene	50-32-8	N.D.	32	170	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	32	170	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	32	170	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	32	170	5
10726	Chrysene	218-01-9	N.D.	32	170	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	32	170	5
10726	Fluoranthene	206-44-0	N.D.	32	170	5
10726	Fluorene	86-73-7	N.D.	32	170	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	32	170	5
10726	Naphthalene	91-20-3	N.D.	32	170	5
10726	Phenanthrene	85-01-8	N.D.	32	170	5
10726	Pyrene	129-00-0	N.D.	32	170	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg		
07914	Boron	7440-42-8	15.7	1.20	14.5	1
	SW-846 6020A	mg/kg	mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.193 J	0.177	0.720	2
06125	Arsenic	7440-38-2	8.07	0.266	1.44	2
06126	Barium	7440-39-3	107	0.288	1.44	2
06127	Beryllium	7440-41-7	0.947	0.0389	0.360	2
06128	Cadmium	7440-43-9	0.279 J	0.0698	0.360	2
06129	Calcium	7440-70-2	19,100	35.3	144	2
06131	Chromium	7440-47-3	24.1	0.213	1.44	2
06132	Cobalt	7440-48-4	11.1	0.0724	0.360	2
06133	Copper	7440-50-8	19.4	0.181	1.44	2
06135	Lead	7439-92-1	21.4	0.0526	0.720	2
06136	Magnesium	7439-95-4	9,360	10.6	180	5
06137	Manganese	7439-96-5	747	0.791	3.60	5
06138	Molybdenum	7439-98-7	0.904	0.0828	0.360	2
06141	Selenium	7782-49-2	0.538 J	0.157	1.44	2
06144	Strontium	7440-24-6	29.4	0.138	0.720	2
06145	Thallium	7440-28-0	0.281 J	0.0522	0.360	2
06148	Vanadium	7440-62-2	38.7	0.0680	0.360	2
06149	Zinc	7440-66-6	104	2.28	10.8	2

	SW-846 7471B	mg/kg	mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0300 J	0.0198	0.198	1

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg		
02079	TOC Solids/Sludges Combustion	n.a.	23,900	1,790	5,360	1

Wet Chemistry	SM 2540 G-1997	%	%	%	
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*=This limit was used in the evaluation of the final result

Sample Description: P6C13 Sediment
Pond 6

LL Sample # SW 8519711
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 08:05 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD613

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SM 2540 G-1997						
00111	Moisture	n.a.	49.5	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 13:07	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:02	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:35	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:35	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:25	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:25	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:35	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:35	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:35	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:52	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 18:56	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: P6C14 Sediment
Pond 6

LL Sample # SW 8519712
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 08:05 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD614

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	33	170	5
10726	Acenaphthylene	208-96-8	N.D.	33	170	5
10726	Anthracene	120-12-7	N.D.	33	170	5
10726	Benzo(a)anthracene	56-55-3	N.D.	33	170	5
10726	Benzo(a)pyrene	50-32-8	N.D.	33	170	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	33	170	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	33	170	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	33	170	5
10726	Chrysene	218-01-9	N.D.	33	170	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	33	170	5
10726	Fluoranthene	206-44-0	N.D.	33	170	5
10726	Fluorene	86-73-7	N.D.	33	170	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	33	170	5
10726	Naphthalene	91-20-3	N.D.	33	170	5
10726	Phenanthrene	85-01-8	N.D.	33	170	5
10726	Pyrene	129-00-0	N.D.	33	170	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg		
07914	Boron	7440-42-8	16.0	1.14	13.7	1
	SW-846 6020A	mg/kg	mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.215 J	0.148	0.604	2
06125	Arsenic	7440-38-2	8.00	0.223	1.21	2
06126	Barium	7440-39-3	103	0.242	1.21	2
06127	Beryllium	7440-41-7	0.919	0.0326	0.302	2
06128	Cadmium	7440-43-9	0.263 J	0.0586	0.302	2
06129	Calcium	7440-70-2	18,000	29.6	121	2
06131	Chromium	7440-47-3	23.2	0.179	1.21	2
06132	Cobalt	7440-48-4	10.7	0.0607	0.302	2
06133	Copper	7440-50-8	18.5	0.152	1.21	2
06135	Lead	7439-92-1	20.5	0.0441	0.604	2
06136	Magnesium	7439-95-4	9,150	8.91	151	5
06137	Manganese	7439-96-5	733	0.664	3.02	5
06138	Molybdenum	7439-98-7	0.874	0.0695	0.302	2
06141	Selenium	7782-49-2	0.553 J	0.132	1.21	2
06144	Strontium	7440-24-6	28.2	0.116	0.604	2
06145	Thallium	7440-28-0	0.263 J	0.0438	0.302	2
06148	Vanadium	7440-62-2	37.2	0.0571	0.302	2
06149	Zinc	7440-66-6	101	1.91	9.06	2
	SW-846 7471B	mg/kg	mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0458 J	0.0196	0.196	1

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg		
02079	TOC Solids/Sludges Combustion	n.a.	26,500	1,820	5,460	1

Wet Chemistry	SM 2540 G-1997	%	%	%	
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*=This limit was used in the evaluation of the final result

Sample Description: P6C14 Sediment
Pond 6

LL Sample # SW 8519712
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 08:05 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD614

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	50.6	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 13:32	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:11	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:37	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:37	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:27	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:27	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:37	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:37	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:37	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 18:54	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 19:04	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2B1 Sediment
Pond 6

LL Sample # SW 8519713
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 09:10 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD615

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270D ug/kg						
10726	Acenaphthene	83-32-9	N.D.	22	110	1
10726	Acenaphthylene	208-96-8	N.D.	22	110	1
10726	Anthracene	120-12-7	N.D.	22	110	1
10726	Benzo(a)anthracene	56-55-3	N.D.	22	110	1
10726	Benzo(a)pyrene	50-32-8	N.D.	22	110	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	22	110	1
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	22	110	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	22	110	1
10726	Chrysene	218-01-9	N.D.	22	110	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	22	110	1
10726	Fluoranthene	206-44-0	N.D.	22	110	1
10726	Fluorene	86-73-7	N.D.	22	110	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	22	110	1
10726	Naphthalene	91-20-3	N.D.	22	110	1
10726	Phenanthrene	85-01-8	N.D.	22	110	1
10726	Pyrene	129-00-0	N.D.	22	110	1
Metals SW-846 6010C mg/kg						
07914	Boron	7440-42-8	24.1 J	4.50	54.2	1
SW-846 6020A mg/kg						
06124	Antimony	7440-36-0	N.D.	0.623	2.54	2
06125	Arsenic	7440-38-2	7.57	0.937	5.08	2
06126	Barium	7440-39-3	88.7	1.02	5.08	2
06127	Beryllium	7440-41-7	0.786 J	0.137	1.27	2
06128	Cadmium	7440-43-9	N.D.	0.246	1.27	2
06129	Calcium	7440-70-2	91,900	125	508	2
06131	Chromium	7440-47-3	22.7	0.750	5.08	2
06132	Cobalt	7440-48-4	9.77	0.255	1.27	2
06133	Copper	7440-50-8	16.6	0.640	5.08	2
06135	Lead	7439-92-1	17.7	0.185	2.54	2
06136	Magnesium	7439-95-4	11,300	15.0	254	2
06137	Manganese	7439-96-5	1,670	1.12	5.08	2
06138	Molybdenum	7439-98-7	3.04	0.292	1.27	2
06141	Selenium	7782-49-2	0.734 J	0.555	5.08	2
06144	Strontium	7440-24-6	309	0.486	2.54	2
06145	Thallium	7440-28-0	0.306 J	0.184	1.27	2
06148	Vanadium	7440-62-2	33.7	0.240	1.27	2
06149	Zinc	7440-66-6	72.2	8.03	38.1	2
SW-846 7471B mg/kg						
00159	Mercury	7439-97-6	N.D.	0.0645	0.645	1
Wet Chemistry SM 5310 B mg/kg						
modified-2000						
02079	TOC Solids/Sludges Combustion	n.a.	36,100	5,450	16,300	1
Wet Chemistry SM 2540 G-1997 %						
00111	Moisture	n.a.	85.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: LP2B1 Sediment
Pond 6

LL Sample # SW 8519713
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 09:10 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD615

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 13:57	Joseph M Gambler	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:15	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:46	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:46	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:32	Tara L Snyder	2
06137	Manganese	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:46	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:46	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:46	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 19:01	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 19:11	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4B1 Sediment
Pond 6

LL Sample # SW 8519714
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 09:30 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD616

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270D ug/kg						
10726	Acenaphthene	83-32-9	N.D.	10	53	1
10726	Acenaphthylene	208-96-8	N.D.	10	53	1
10726	Anthracene	120-12-7	N.D.	10	53	1
10726	Benzo(a)anthracene	56-55-3	N.D.	10	53	1
10726	Benzo(a)pyrene	50-32-8	N.D.	10	53	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	10	53	1
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	10	53	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	10	53	1
10726	Chrysene	218-01-9	N.D.	10	53	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	10	53	1
10726	Fluoranthene	206-44-0	N.D.	10	53	1
10726	Fluorene	86-73-7	N.D.	10	53	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	10	53	1
10726	Naphthalene	91-20-3	N.D.	10	53	1
10726	Phenanthrene	85-01-8	N.D.	10	53	1
10726	Pyrene	129-00-0	N.D.	10	53	1
Metals SW-846 6010C mg/kg						
07914	Boron	7440-42-8	17.8 J	2.11	25.4	1
SW-846 6020A mg/kg						
06124	Antimony	7440-36-0	N.D.	0.234	0.954	2
06125	Arsenic	7440-38-2	10.4	0.352	1.91	2
06126	Barium	7440-39-3	77.7	0.382	1.91	2
06127	Beryllium	7440-41-7	0.805	0.0515	0.477	2
06128	Cadmium	7440-43-9	0.175 J	0.0926	0.477	2
06129	Calcium	7440-70-2	21,900	46.8	191	2
06131	Chromium	7440-47-3	24.1	0.282	1.91	2
06132	Cobalt	7440-48-4	10.9	0.0959	0.477	2
06133	Copper	7440-50-8	18.9	0.240	1.91	2
06135	Lead	7439-92-1	19.1	0.0697	0.954	2
06136	Magnesium	7439-95-4	10,100	14.1	239	5
06137	Manganese	7439-96-5	882	1.05	4.77	5
06138	Molybdenum	7439-98-7	0.781	0.110	0.477	2
06141	Selenium	7782-49-2	0.467 J	0.208	1.91	2
06144	Strontium	7440-24-6	60.2	0.183	0.954	2
06145	Thallium	7440-28-0	0.279 J	0.0692	0.477	2
06148	Vanadium	7440-62-2	33.6	0.0902	0.477	2
06149	Zinc	7440-66-6	75.1	3.02	14.3	2
SW-846 7471B mg/kg						
00159	Mercury	7439-97-6	0.0387 J	0.0307	0.307	1
Wet Chemistry SM 5310 B mg/kg						
modified-2000						
02079	TOC Solids/Sludges Combustion	n.a.	19,500	2,770	8,320	1
Wet Chemistry SM 2540 G-1997 %						
00111	Moisture	n.a.	68.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4B1 Sediment
Pond 6

LL Sample # SW 8519714
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 09:30 by MM

Illinois State Water Survey

Submitted: 08/10/2016 09:30

2204 Griffith Drive

Reported: 09/20/2016 12:20

Champaign IL 61820

PD616

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 14:22	Joseph M Gambler	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:18	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:49	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:49	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:34	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:34	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:49	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:49	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:49	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 19:03	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 19:49	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4B2 Sediment
Pond 6

LL Sample # SW 8519715
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 09:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD617

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	12	62	1
10726	Acenaphthylene	208-96-8	N.D.	12	62	1
10726	Anthracene	120-12-7	N.D.	12	62	1
10726	Benzo(a)anthracene	56-55-3	N.D.	12	62	1
10726	Benzo(a)pyrene	50-32-8	N.D.	12	62	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	12	62	1
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	12	62	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	12	62	1
10726	Chrysene	218-01-9	N.D.	12	62	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	12	62	1
10726	Fluoranthene	206-44-0	N.D.	12	62	1
10726	Fluorene	86-73-7	N.D.	12	62	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	12	62	1
10726	Naphthalene	91-20-3	N.D.	12	62	1
10726	Phenanthrene	85-01-8	N.D.	12	62	1
10726	Pyrene	129-00-0	N.D.	12	62	1
Metals		SW-846 6010C	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	20.9 J	2.42	29.2	1
		SW-846 6020A	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	N.D.	0.296	1.21	2
06125	Arsenic	7440-38-2	8.51	0.445	2.41	2
06126	Barium	7440-39-3	72.6	0.482	2.41	2
06127	Beryllium	7440-41-7	0.751	0.0651	0.603	2
06128	Cadmium	7440-43-9	0.168 J	0.117	0.603	2
06129	Calcium	7440-70-2	19,200	59.1	241	2
06131	Chromium	7440-47-3	21.5	0.356	2.41	2
06132	Cobalt	7440-48-4	9.46	0.121	0.603	2
06133	Copper	7440-50-8	17.3	0.304	2.41	2
06135	Lead	7439-92-1	16.9	0.0880	1.21	2
06136	Magnesium	7439-95-4	8,820	7.11	121	2
06137	Manganese	7439-96-5	854	0.530	2.41	2
06138	Molybdenum	7439-98-7	0.815	0.139	0.603	2
06141	Selenium	7782-49-2	0.487 J	0.263	2.41	2
06144	Strontium	7440-24-6	56.0	0.231	1.21	2
06145	Thallium	7440-28-0	0.259 J	0.0874	0.603	2
06148	Vanadium	7440-62-2	30.9	0.114	0.603	2
06149	Zinc	7440-66-6	72.0	3.81	18.1	2
		SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0356	0.356	1
Wet Chemistry		SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg	
02079	TOC Solids/Sludges Combustion	n.a.	26,800	2,880	8,650	1
Wet Chemistry		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	72.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: LP4B2 Sediment
Pond 6

LL Sample # SW 8519715
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 09:30 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD617

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 14:47	Joseph M Gambler	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:21	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:52	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:52	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:35	Tara L Snyder	2
06137	Manganese	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:52	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:52	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:52	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 19:05	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 19:57	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: LP3B1 Sediment
Pond 6

LL Sample # SW 8519716
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 09:42 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD618

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	30	150	5
10726	Acenaphthylene	208-96-8	N.D.	30	150	5
10726	Anthracene	120-12-7	N.D.	30	150	5
10726	Benzo(a)anthracene	56-55-3	N.D.	30	150	5
10726	Benzo(a)pyrene	50-32-8	N.D.	30	150	5
10726	Benzo(b)fluoranthene	205-99-2	N.D.	30	150	5
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	30	150	5
10726	Benzo(k)fluoranthene	207-08-9	N.D.	30	150	5
10726	Chrysene	218-01-9	N.D.	30	150	5
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	30	150	5
10726	Fluoranthene	206-44-0	N.D.	30	150	5
10726	Fluorene	86-73-7	N.D.	30	150	5
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	30	150	5
10726	Naphthalene	91-20-3	39 J	30	150	5
10726	Phenanthrene	85-01-8	94 J	30	150	5
10726	Pyrene	129-00-0	N.D.	30	150	5

Reporting limits were raised due to interference from the sample matrix.

Metals	SW-846 6010C	mg/kg	mg/kg	mg/kg	
07914 Boron	7440-42-8	14.0	1.16	13.9	1
	SW-846 6020A	mg/kg	mg/kg	mg/kg	
06124 Antimony	7440-36-0	N.D.	0.147	0.598	2
06125 Arsenic	7440-38-2	9.38	0.221	1.20	2
06126 Barium	7440-39-3	34.4	0.239	1.20	2
06127 Beryllium	7440-41-7	0.495	0.0323	0.299	2
06128 Cadmium	7440-43-9	0.178 J	0.0580	0.299	2
06129 Calcium	7440-70-2	22,800	29.4	120	2
06131 Chromium	7440-47-3	11.6	0.177	1.20	2
06132 Cobalt	7440-48-4	7.23	0.0601	0.299	2
06133 Copper	7440-50-8	10.7	0.151	1.20	2
06135 Lead	7439-92-1	11.0	0.0437	0.598	2
06136 Magnesium	7439-95-4	10,300	8.83	150	5
06137 Manganese	7439-96-5	699	0.658	2.99	5
06138 Molybdenum	7439-98-7	1.16	0.0688	0.299	2
06141 Selenium	7782-49-2	0.251 J	0.131	1.20	2
06144 Strontium	7440-24-6	34.3	0.115	0.598	2
06145 Thallium	7440-28-0	0.107 J	0.0434	0.299	2
06148 Vanadium	7440-62-2	18.0	0.0566	0.299	2
06149 Zinc	7440-66-6	62.4	1.89	8.98	2
	SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159 Mercury	7439-97-6	N.D.	0.0171	0.171	1

Wet Chemistry	SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg	
02079 TOC Solids/Sludges Combustion	n.a.	14,200	1,580	4,750	1

Wet Chemistry	SM 2540 G-1997	%	%	%	
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*=This limit was used in the evaluation of the final result

Sample Description: LP3B1 Sediment
Pond 6

LL Sample # SW 8519716
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 09:42 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD618

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SM 2540 G-1997						
00111	Moisture	n.a.	44.3	0.50	0.50	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 15:12	Joseph M Gambler	5
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:24	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:55	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:55	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:37	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:37	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:55	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:55	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:55	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 19:07	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 20:04	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B1 Sediment
Pond 6

LL Sample # SW 8519717
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 10:02 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD619

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270D	ug/kg	ug/kg	ug/kg	
10726	Acenaphthene	83-32-9	N.D.	13	68	1
10726	Acenaphthylene	208-96-8	N.D.	13	68	1
10726	Anthracene	120-12-7	N.D.	13	68	1
10726	Benzo(a)anthracene	56-55-3	N.D.	13	68	1
10726	Benzo(a)pyrene	50-32-8	N.D.	13	68	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	13	68	1
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	13	68	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	13	68	1
10726	Chrysene	218-01-9	N.D.	13	68	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	13	68	1
10726	Fluoranthene	206-44-0	N.D.	13	68	1
10726	Fluorene	86-73-7	N.D.	13	68	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	13	68	1
10726	Naphthalene	91-20-3	15 J	13	68	1
10726	Phenanthrene	85-01-8	N.D.	13	68	1
10726	Pyrene	129-00-0	N.D.	13	68	1
Metals		SW-846 6010C	mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	21.8 J	3.07	37.0	1
		SW-846 6020A	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	N.D.	0.302	1.23	2
06125	Arsenic	7440-38-2	9.12	0.454	2.46	2
06126	Barium	7440-39-3	65.2	0.492	2.46	2
06127	Beryllium	7440-41-7	0.798	0.0665	0.615	2
06128	Cadmium	7440-43-9	0.211 J	0.119	0.615	2
06129	Calcium	7440-70-2	47,000	60.4	246	2
06131	Chromium	7440-47-3	22.4	0.364	2.46	2
06132	Cobalt	7440-48-4	12.8	0.124	0.615	2
06133	Copper	7440-50-8	18.2	0.310	2.46	2
06135	Lead	7439-92-1	16.5	0.0898	1.23	2
06136	Magnesium	7439-95-4	8,700	18.2	308	5
06137	Manganese	7439-96-5	1,300	1.35	6.15	5
06138	Molybdenum	7439-98-7	1.23	0.142	0.615	2
06141	Selenium	7782-49-2	0.622 J	0.269	2.46	2
06144	Strontium	7440-24-6	149	0.236	1.23	2
06145	Thallium	7440-28-0	0.213 J	0.0892	0.615	2
06148	Vanadium	7440-62-2	27.2	0.116	0.615	2
06149	Zinc	7440-66-6	80.8	3.89	18.5	2
		SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0375	0.375	1
Wet Chemistry		SM 5310 B modified-2000	mg/kg	mg/kg	mg/kg	
02079	TOC Solids/Sludges Combustion	n.a.	19,900	3,520	10,500	1
Wet Chemistry		SM 2540 G-1997	%	%	%	
00111	Moisture	n.a.	75.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B1 Sediment
Pond 6

LL Sample # SW 8519717
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 10:02 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD619

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 15:57	Edward Monborne	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:27	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 22:58	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 22:58	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:39	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:39	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 22:58	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 22:58	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 22:58	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 19:09	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731A	08/31/2016 20:15	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B2 Sediment
Pond 6

LL Sample # SW 8519718
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 10:02 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD620

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270D ug/kg						
10726	Acenaphthene	83-32-9	N.D.	14	71	1
10726	Acenaphthylene	208-96-8	N.D.	14	71	1
10726	Anthracene	120-12-7	N.D.	14	71	1
10726	Benzo(a)anthracene	56-55-3	N.D.	14	71	1
10726	Benzo(a)pyrene	50-32-8	N.D.	14	71	1
10726	Benzo(b)fluoranthene	205-99-2	N.D.	14	71	1
10726	Benzo(g,h,i)perylene	191-24-2	N.D.	14	71	1
10726	Benzo(k)fluoranthene	207-08-9	N.D.	14	71	1
10726	Chrysene	218-01-9	N.D.	14	71	1
10726	Dibenz(a,h)anthracene	53-70-3	N.D.	14	71	1
10726	Fluoranthene	206-44-0	N.D.	14	71	1
10726	Fluorene	86-73-7	N.D.	14	71	1
10726	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	14	71	1
10726	Naphthalene	91-20-3	21 J	14	71	1
10726	Phenanthrene	85-01-8	N.D.	14	71	1
10726	Pyrene	129-00-0	N.D.	14	71	1
Metals SW-846 6010C mg/kg						
07914	Boron	7440-42-8	19.5 J	3.32	40.0	1
SW-846 6020A mg/kg						
06124	Antimony	7440-36-0	N.D.	0.320	1.30	2
06125	Arsenic	7440-38-2	9.16	0.481	2.61	2
06126	Barium	7440-39-3	66.9	0.522	2.61	2
06127	Beryllium	7440-41-7	0.853	0.0704	0.652	2
06128	Cadmium	7440-43-9	0.166 J	0.126	0.652	2
06129	Calcium	7440-70-2	46,700	64.0	261	2
06131	Chromium	7440-47-3	22.4	0.385	2.61	2
06132	Cobalt	7440-48-4	12.5	0.131	0.652	2
06133	Copper	7440-50-8	18.0	0.329	2.61	2
06135	Lead	7439-92-1	16.5	0.0952	1.30	2
06136	Magnesium	7439-95-4	8,700	19.2	326	5
06137	Manganese	7439-96-5	1,320	1.43	6.52	5
06138	Molybdenum	7439-98-7	1.33	0.150	0.652	2
06141	Selenium	7782-49-2	0.590 J	0.285	2.61	2
06144	Strontium	7440-24-6	148	0.250	1.30	2
06145	Thallium	7440-28-0	0.220 J	0.0945	0.652	2
06148	Vanadium	7440-62-2	28.0	0.123	0.652	2
06149	Zinc	7440-66-6	85.0	4.12	19.6	2
SW-846 7471B mg/kg						
00159	Mercury	7439-97-6	N.D.	0.0397	0.397	1
Wet Chemistry SM 5310 B modified-2000 mg/kg						
02079	TOC Solids/Sludges Combustion	n.a.	45,200	3,630	10,900	1
Wet Chemistry SM 2540 G-1997 %						
00111	Moisture	n.a.	76.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: LP1B2 Sediment
Pond 6

LL Sample # SW 8519718
LL Group # 1693436
Account # 38268

Project Name: Pond 6

Collected: 08/04/2016 10:02 by MM

Illinois State Water Survey
2204 Griffith Drive
Champaign IL 61820

Submitted: 08/10/2016 09:30

Reported: 09/20/2016 12:20

PD620

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SM 2540 G-1997	%	%	%	
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10726	PAHs in Soil	SW-846 8270D	1	16230SLA026	08/18/2016 16:20	Edward Monborne	1
10813	BNA Soil Microwave APP IX	SW-846 3546	1	16230SLA026	08/17/2016 18:00	Benjamin J Rosenberger	1
07914	Boron	SW-846 6010C	1	162350637001	08/23/2016 02:30	Elaine F Stoltzfus	1
06124	Antimony	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06125	Arsenic	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06126	Barium	SW-846 6020A	1	162250637001D	08/18/2016 23:01	Patrick J Engle	2
06127	Beryllium	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06128	Cadmium	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06129	Calcium	SW-846 6020A	1	162250637001B	08/18/2016 23:01	Patrick J Engle	2
06131	Chromium	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06132	Cobalt	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06133	Copper	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06135	Lead	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06136	Magnesium	SW-846 6020A	1	162250637001A	08/22/2016 03:40	Tara L Snyder	5
06137	Manganese	SW-846 6020A	1	162250637001A	08/22/2016 03:40	Tara L Snyder	5
06138	Molybdenum	SW-846 6020A	1	162250637001C	08/18/2016 23:01	Patrick J Engle	2
06141	Selenium	SW-846 6020A	1	162250637001B	08/18/2016 23:01	Patrick J Engle	2
06144	Strontium	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06145	Thallium	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06148	Vanadium	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
06149	Zinc	SW-846 6020A	1	162250637001A	08/18/2016 23:01	Patrick J Engle	2
00159	Mercury	SW-846 7471B	1	162250638002	08/16/2016 19:11	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	162250637001	08/15/2016 06:45	Ann M Borg	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	2	162350637001	08/22/2016 16:15	JoElla L Rice	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	162250638002	08/15/2016 08:15	Ann M Borg	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	16244298731B	08/31/2016 20:26	Clinton M Wilson	1
00111	Moisture	SM 2540 G-1997	1	16224820008B	08/12/2016 00:34	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/kg	ug/kg	ug/kg
Batch number: 16230SLA026	Sample number(s): 8519699-8519718		
Acenaphthene	N.D.	3	17
Acenaphthylene	N.D.	3	17
Anthracene	N.D.	3	17
Benzo(a)anthracene	N.D.	3	17
Benzo(a)pyrene	N.D.	3	17
Benzo(b)fluoranthene	N.D.	3	17
Benzo(g,h,i)perylene	N.D.	3	17
Benzo(k)fluoranthene	N.D.	3	17
Chrysene	N.D.	3	17
Dibenz(a,h)anthracene	N.D.	3	17
Fluoranthene	N.D.	3	17
Fluorene	N.D.	3	17
Indeno(1,2,3-cd)pyrene	N.D.	3	17
Naphthalene	N.D.	3	17
Phenanthrene	N.D.	3	17
Pyrene	N.D.	3	17
	mg/kg	mg/kg	mg/kg
Batch number: 162250637001A	Sample number(s): 8519699-8519700,8519702-8519718		
Antimony	N.D.	0.0982	0.400
Arsenic	N.D.	0.148	0.800
Beryllium	N.D.	0.0216	0.200
Cadmium	N.D.	0.0388	0.200
Chromium	0.198 J	0.118	0.800
Cobalt	N.D.	0.0402	0.200
Copper	N.D.	0.101	0.800
Lead	0.0322 J	0.0292	0.400
Magnesium	N.D.	2.36	40.0
Manganese	N.D.	0.176	0.800
Strontium	0.0889 J	0.0766	0.400
Thallium	N.D.	0.0290	0.200
Vanadium	N.D.	0.0378	0.200
Zinc	N.D.	1.26	6.00
Batch number: 162250637001B	Sample number(s): 8519699-8519700,8519702-8519718		
Calcium	N.D.	19.6	80.0
Selenium	N.D.	0.0874	0.800
Batch number: 162250637001C	Sample number(s): 8519699-8519700,8519702-8519718		
Molybdenum	N.D.	0.0460	0.200
Batch number: 162250637001D	Sample number(s): 8519699-8519700,8519702-8519718		
Barium	N.D.	0.160	0.800
Batch number: 162250638002	Sample number(s): 8519699-8519718		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	mg/kg	mg/kg	mg/kg
Mercury	N.D.	0.0100	0.100
Batch number: 162280637001A	Sample number(s): 8519701		
Antimony	N.D.	0.0982	0.400
Arsenic	N.D.	0.148	0.800
Beryllium	N.D.	0.0216	0.200
Cadmium	N.D.	0.0388	0.200
Chromium	N.D.	0.118	0.800
Cobalt	N.D.	0.0402	0.200
Copper	0.222 J	0.101	0.800
Lead	N.D.	0.0292	0.400
Magnesium	N.D.	2.36	40.0
Manganese	N.D.	0.176	0.800
Strontium	N.D.	0.0766	0.400
Thallium	N.D.	0.0290	0.200
Vanadium	N.D.	0.0378	0.200
Zinc	N.D.	1.26	6.00
Batch number: 162280637001B	Sample number(s): 8519701		
Calcium	N.D.	19.6	80.0
Selenium	N.D.	0.0874	0.800
Batch number: 162280637001C	Sample number(s): 8519701		
Molybdenum	N.D.	0.0460	0.200
Batch number: 162280637001D	Sample number(s): 8519701		
Barium	N.D.	0.160	0.800
Batch number: 162350637001	Sample number(s): 8519699-8519700,8519702-8519718		
Boron	N.D.	0.830	10.0
Batch number: 162530637001	Sample number(s): 8519701		
Boron	N.D.	0.830	10.0
Batch number: 16243298731B	Sample number(s): 8519699-8519700,8519702-8519707		
TOC Solids/Sludges Combustion	N.D.	100	300
Batch number: 16244298731A	Sample number(s): 8519708-8519717		
TOC Solids/Sludges Combustion	N.D.	100	300
Batch number: 16244298731B	Sample number(s): 8519718		
TOC Solids/Sludges Combustion	N.D.	100	300
Batch number: 16251298731B	Sample number(s): 8519701		
TOC Solids/Sludges Combustion	N.D.	100	300

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/kg	ug/kg	ug/kg	ug/kg					
Batch number: 16230SLA026	Sample number(s): 8519699-8519718								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

LCS/LCSD

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Acenaphthene	1666.67	1743.12			105		83-116		
Acenaphthylene	1666.67	1830.29			110		83-119		
Anthracene	1666.67	1784.86			107		82-118		
Benzo (a) anthracene	1666.67	1729.53			104		76-119		
Benzo (a) pyrene	1666.67	1741.63			104		85-117		
Benzo (b) fluoranthene	1666.67	1695.8			102		79-121		
Benzo (g, h, i) perylene	1666.67	1757.74			105		71-123		
Benzo (k) fluoranthene	1666.67	1871.31			112		79-120		
Chrysene	1666.67	1707.6			102		80-121		
Dibenz (a, h) anthracene	1666.67	1770.64			106		81-123		
Fluoranthene	1666.67	1718.44			103		81-117		
Fluorene	1666.67	1730.16			104		86-118		
Indeno (1, 2, 3-cd) pyrene	1666.67	1690.39			101		75-118		
Naphthalene	1666.67	1633.4			98		82-112		
Phenanthrene	1666.67	1685.31			101		80-120		
Pyrene	1666.67	1670.42			100		80-120		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 162250637001A	Sample number(s): 8519699-8519700, 8519702-8519718								
Antimony	0.600	0.566			94		80-120		
Arsenic	1.00	0.996			100		80-120		
Beryllium	0.400	0.378			94		80-120		
Cadmium	0.500	0.477			95		80-120		
Chromium	5.00	4.83			97		80-120		
Cobalt	25	22.52			90		80-120		
Copper	5.00	4.75			95		80-120		
Lead	1.50	1.47			98		80-120		
Magnesium	200	177.08			89		80-120		
Manganese	5.00	5.13			103		80-120		
Strontium	4.00	3.91			98		80-120		
Thallium	0.200	0.185			93		80-120		
Vanadium	5.00	4.93			99		80-120		
Zinc	50	47.88			96		80-120		
Batch number: 162250637001B	Sample number(s): 8519699-8519700, 8519702-8519718								
Calcium	400	416.8			104		80-120		
Selenium	1.00	0.970			97		80-120		
Batch number: 162250637001C	Sample number(s): 8519699-8519700, 8519702-8519718								
Molybdenum	5.00	4.79			96		80-120		
Batch number: 162250637001D	Sample number(s): 8519699-8519700, 8519702-8519718								
Barium	5.00	4.78			96		80-120		
Batch number: 162250638002	Sample number(s): 8519699-8519718								
Mercury	0.100	0.104			104		80-120		
Batch number: 162280637001A	Sample number(s): 8519701								
Antimony	0.600	0.626			104		80-120		
Arsenic	1.00	1.06			106		80-120		
Beryllium	0.400	0.431			108		80-120		

*- Outside of specification

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Cadmium	0.500	0.527			105		80-120		
Chromium	5.00	5.27			105		80-120		
Cobalt	25	24.04			96		80-120		
Copper	5.00	5.08			102		80-120		
Lead	1.50	1.55			103		80-120		
Magnesium	200	197.76			99		80-120		
Manganese	5.00	5.25			105		80-120		
Strontium	4.00	4.09			102		80-120		
Thallium	0.200	0.201			101		80-120		
Vanadium	5.00	5.04			101		80-120		
Zinc	50	54.26			109		80-120		
Batch number: 162280637001B	Sample number(s): 8519701								
Calcium	400	438			110		80-120		
Selenium	1.00	0.983			98		80-120		
Batch number: 162280637001C	Sample number(s): 8519701								
Molybdenum	5.00	5.19			104		80-120		
Batch number: 162280637001D	Sample number(s): 8519701								
Barium	5.00	5.24			105		80-120		
Batch number: 162350637001	Sample number(s): 8519699-8519700,8519702-8519718								
Boron	200	193.67			97		80-120		
Batch number: 162530637001	Sample number(s): 8519701								
Boron	200	194.21			97		80-120		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 16243298731B	Sample number(s): 8519699-8519700,8519702-8519707								
TOC Solids/Sludges Combustion	5830	4526.96			78		47-143		
Batch number: 16244298731A	Sample number(s): 8519708-8519717								
TOC Solids/Sludges Combustion	5830	5350.19			92		47-143		
Batch number: 16244298731B	Sample number(s): 8519718								
TOC Solids/Sludges Combustion	5830	5350.19			92		47-143		
Batch number: 16251298731B	Sample number(s): 8519701								
TOC Solids/Sludges Combustion	5830	4773.84			82		47-143		
	%	%	%	%					
Batch number: 16224820008A	Sample number(s): 8519699-8519708								
Moisture	89.5	89.43			100		99-101		
Batch number: 16224820008B	Sample number(s): 8519709-8519718								
Moisture	89.5	89.43			100		99-101		

*- Outside of specification

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/kg	MS Spike Added ug/kg	MS Conc ug/kg	MSD Spike Added ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 16230SLA026	Sample number(s): 8519699-8519718 UNSPK: 8519704									
Acenaphthene	N.D.	1657.82	1540.95	1654.53	1631.15	93	99	83-116	6	30
Acenaphthylene	N.D.	1657.82	1581.22	1654.53	1693.61	95	102	83-119	7	30
Anthracene	N.D.	1657.82	1573.3	1654.53	1691.06	95	102	82-118	7	30
Benzo(a)anthracene	N.D.	1657.82	1552.31	1654.53	1627.12	94	98	76-119	5	30
Benzo(a)pyrene	N.D.	1657.82	1443.22	1654.53	1514.07	87	92	85-117	5	30
Benzo(b)fluoranthene	N.D.	1657.82	1542.2	1654.53	1605.14	93	97	79-121	4	30
Benzo(g,h,i)perylene	N.D.	1657.82	1569.84	1654.53	1610.43	95	97	71-123	3	30
Benzo(k)fluoranthene	N.D.	1657.82	1494.01	1654.53	1573.37	90	95	79-120	5	30
Chrysene	N.D.	1657.82	1542.6	1654.53	1662.75	93	100	80-121	7	30
Dibenz(a,h)anthracene	N.D.	1657.82	1566.06	1654.53	1591.13	94	96	81-123	2	30
Fluoranthene	N.D.	1657.82	1548.52	1654.53	1666.14	93	101	81-117	7	30
Fluorene	N.D.	1657.82	1554.39	1654.53	1678.72	94	101	86-118	8	30
Indeno(1,2,3-cd)pyrene	N.D.	1657.82	1516.03	1654.53	1559.94	91	94	75-118	3	30
Naphthalene	N.D.	1657.82	1500.34	1654.53	1595.49	91	96	82-112	6	30
Phenanthrene	N.D.	1657.82	1516.24	1654.53	1597.32	91	97	80-120	5	30
Pyrene	N.D.	1657.82	1498.71	1654.53	1601.05	90	97	80-120	7	30
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 162250637001A	Sample number(s): 8519699-8519700,8519702-8519718 UNSPK: 8519699									
Antimony	N.D.	0.851	0.576	0.923	0.436	68*	47*	75-125	28*	20
Arsenic	2.96	1.42	4.80	1.54	5.33	129*	154*	75-125	10	20
Beryllium	0.275	0.567	0.834	0.615	0.874	98	97	75-125	5	20
Cadmium	0.0771	0.709	0.779	0.769	0.823	99	97	75-125	5	20
Chromium	6.04	7.09	14.3	7.69	14.48	116	110	75-125	1	20
Cobalt	2.59	35.46	34.92	38.46	36.86	91	89	75-125	5	20
Copper	4.70	7.09	11.84	7.69	12.75	101	105	75-125	7	20
Lead	5.76	2.13	8.91	2.31	9.28	148*	153*	75-125	4	20
Magnesium	2078.43	283.69	2727.66	307.69	2740	229 (2)	215 (2)	75-125	0	20
Manganese	213.73	7.09	260.86	7.69	270.15	665 (2)	734 (2)	75-125	4	20
Strontium	10.16	5.67	19.22	6.15	20.14	160*	162*	75-125	5	20
Thallium	0.0947	0.284	0.379	0.308	0.403	100	100	75-125	6	20
Vanadium	10.7	7.09	20.84	7.69	20.83	143*	132*	75-125	0	20
Zinc	26.76	35.46	98.87	38.46	110.77	203*	218*	75-125	11	20
Batch number: 162250637001B	Sample number(s): 8519699-8519700,8519702-8519718 UNSPK: 8519699									
Calcium	6398.04	567.38	7917.73	615.38	8250.77	268 (2)	301 (2)	75-125	4	20
Selenium	0.214	1.42	1.14	1.54	1.29	65*	70*	75-125	13	20
Batch number: 162250637001C	Sample number(s): 8519699-8519700,8519702-8519718 UNSPK: 8519699									
Molybdenum	0.314	7.09	7.10	7.69	7.60	96	95	75-125	7	20
Batch number: 162250637001D	Sample number(s): 8519699-8519700,8519702-8519718 UNSPK: 8519699									
Barium	30.65	7.09	44.27	7.69	45.97	192 (2)	199*	75-125	4	20
Batch number: 162250638002	Sample number(s): 8519699-8519718 UNSPK: 8519699									
Mercury	0.0172	0.159	0.186	0.164	0.185	107	103	80-120	1	20
Batch number: 162280637001A	Sample number(s): 8519701 UNSPK: P512616									

*- Outside of specification

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Antimony	N.D.	1.15	1.03	1.03	0.954	89	92	75-125	8	20
Arsenic	0.294	1.92	2.28	1.72	2.15	104	107	75-125	6	20
Beryllium	0.103	0.769	0.940	0.690	0.875	109	112	75-125	7	20
Cadmium	N.D.	0.962	1.09	0.862	0.864	113	100	75-125	23*	20
Chromium	2.69	9.62	12.98	8.62	13.35	107	124	75-125	3	20
Cobalt	0.321	48.08	47.13	43.1	42.22	97	97	75-125	11	20
Copper	0.719	9.62	10.03	8.62	9.17	97	98	75-125	9	20
Lead	1.24	2.88	4.14	2.59	4.25	101	116	75-125	3	20
Magnesium	61.38	384.62	449.42	344.83	408.45	101	101	75-125	10	20
Manganese	4.67	9.62	14.6	8.62	13.56	103	103	75-125	7	20
Strontium	0.918	7.69	9.01	6.90	8.17	105	105	75-125	10	20
Thallium	N.D.	0.385	0.398	0.345	0.366	103	106	75-125	8	20
Vanadium	3.51	9.62	13.37	8.62	12.7	103	107	75-125	5	20
Zinc	9.40	48.08	109.85	43.1	99.86	209*	210*	75-125	10	20
Batch number: 162280637001B	Sample number(s): 8519701 UNSPK: P512616									
Calcium	77.98	769.23	861.54	689.66	796.03	102	104	75-125	8	20
Selenium	N.D.	1.92	1.85	1.72	1.67	96	97	75-125	10	20
Batch number: 162280637001C	Sample number(s): 8519701 UNSPK: P512616									
Molybdenum	N.D.	9.62	10.04	8.62	8.82	104	102	75-125	13	20
Batch number: 162280637001D	Sample number(s): 8519701 UNSPK: P512616									
Barium	4.09	9.62	14.2	8.62	16.87	105	148*	75-125	17	20
Batch number: 162350637001	Sample number(s): 8519699-8519700,8519702-8519718 UNSPK: 8519703									
Boron	8.39	173.91	176.73	148.15	152.73	97	97	75-125	15	20
Batch number: 162530637001	Sample number(s): 8519701 UNSPK: P559946									
Boron	N.D.	188.68	155.99	180.18	156.28	83	87	75-125	0	20
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 16243298731B	Sample number(s): 8519699-8519700,8519702-8519707 UNSPK: 8519699									
TOC Solids/Sludges Combustion	9141	52170	54556.52			87		47-143		
Batch number: 16244298731A	Sample number(s): 8519708-8519717 UNSPK: 8519708									
TOC Solids/Sludges Combustion	9877.61	38010	30076.05			53		47-143		
Batch number: 16244298731B	Sample number(s): 8519718 UNSPK: 8519718									
TOC Solids/Sludges Combustion	10659.81	51270	53675.21			84		47-143		
Batch number: 16251298731B	Sample number(s): 8519701 UNSPK: P536205									
TOC Solids/Sludges Combustion	22610.7	34350	32119.13			28*		47-143		

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/kg	DUP Conc mg/kg	DUP RPD	DUP RPD Max
Batch number: 162250637001A	Sample number(s): 8519699-8519700,8519702-8519718 BKG: 8519699			
Antimony	N.D.	0.0902	200* (1)	20
Arsenic	2.96	4.12	33* (1)	20
Beryllium	0.275	0.357	26* (1)	20
Cadmium	0.0771	0.108	33* (1)	20
Chromium	6.04	7.97	28*	20
Cobalt	2.59	3.49	30*	20
Copper	4.70	6.61	34*	20
Lead	5.76	7.50	26*	20
Magnesium	2078.43	2762.07	28*	20
Manganese	213.73	286.9	29*	20
Strontium	10.16	13.7	30*	20
Thallium	0.0947	0.129	30* (1)	20
Vanadium	10.7	13.97	27*	20
Zinc	26.76	35.5	28* (1)	20
Batch number: 162250637001B	Sample number(s): 8519699-8519700,8519702-8519718 BKG: 8519699			
Calcium	6398.04	8237.93	25*	20
Selenium	0.214	0.249	15 (1)	20
Batch number: 162250637001C	Sample number(s): 8519699-8519700,8519702-8519718 BKG: 8519699			
Molybdenum	0.314	0.386	21* (1)	20
Batch number: 162250637001D	Sample number(s): 8519699-8519700,8519702-8519718 BKG: 8519699			
Barium	30.65	40.74	28*	20
Batch number: 162250638002	Sample number(s): 8519699-8519718 BKG: 8519699			
Mercury	0.0172	0.0225	27* (1)	20
Batch number: 162280637001A	Sample number(s): 8519701 BKG: P512616			
Antimony	N.D.	N.D.	0 (1)	20
Arsenic	0.294	0.334	13 (1)	20
Beryllium	0.103	0.117	13 (1)	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	2.69	2.74	2 (1)	20
Cobalt	0.321	0.422	27* (1)	20
Copper	0.719	0.819	13 (1)	20
Lead	1.24	1.05	16 (1)	20
Magnesium	61.38	70.92	14 (1)	20
Manganese	4.67	4.52	3	20
Strontium	0.918	0.517	56* (1)	20
Thallium	N.D.	N.D.	0 (1)	20
Vanadium	3.51	3.57	2	20
Zinc	9.40	10.58	12 (1)	20
Batch number: 162280637001B	Sample number(s): 8519701 BKG: P512616			
Calcium	77.98	57.32	31* (1)	20
Selenium	N.D.	N.D.	0 (1)	20
Batch number: 162280637001C	Sample number(s): 8519701 BKG: P512616			
Molybdenum	N.D.	N.D.	0 (1)	20

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Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/kg	DUP Conc mg/kg	DUP RPD	DUP RPD Max
Batch number: 162280637001D Barium	Sample number(s): 8519701 BKG: P512616 4.09	3.64	12 (1)	20
Batch number: 162350637001 Boron	Sample number(s): 8519699-8519700,8519702-8519718 BKG: 8519703 8.39	7.70	9 (1)	20
Batch number: 162530637001 Boron	Sample number(s): 8519701 BKG: P559946 N.D.	N.D.	0 (1)	20
Batch number: 16243298731B TOC Solids/Sludges Combustion	Sample number(s): 8519699-8519700,8519702-8519707 BKG: 8519699 9141	7419.11	21* (1)	7
Batch number: 16244298731A TOC Solids/Sludges Combustion	Sample number(s): 8519708-8519717 BKG: 8519708 9877.61	8715.03	13* (1)	7
Batch number: 16244298731B TOC Solids/Sludges Combustion	Sample number(s): 8519718 BKG: 8519718 10659.81	5390.63	66* (1)	7
Batch number: 16251298731B TOC Solids/Sludges Combustion	Sample number(s): 8519701 BKG: P536205 22610.7	19316.1	16*	7
Batch number: 16224820008A Moisture	Sample number(s): 8519699-8519708 BKG: 8519703 58.87	58.55	1	5
Batch number: 16224820008B Moisture	Sample number(s): 8519709-8519718 BKG: 8519714 67.99	69.26	2	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in Soil
Batch number: 16230SLA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
8519699	84	80	84
8519700	86	84	88
8519701	53*	48*	49
8519702	90	81	86
8519703	88	88	95
8519704	82	85	91
8519705	91	93	97
8519706	82	87	92
8519707	83	86	93
8519708	87	89	91
8519709	77	89	94

*- Outside of specification

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P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Illinois State Water Survey
Reported: 09/20/2016 12:20

Group Number: 1693436

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
8519710	82	85	89
8519711	79	83	88
8519712	70	82	88
8519713	86	83	88
8519714	86	85	91
8519715	86	76	82
8519716	86	86	92
8519717	86	80	83
8519718	88	80	85
Blank	93	96	100
LCS	94	96	100
MS	86	91	94
MSD	89	91	98
Limits:	54-123	63-117	49-129

*- Outside of specification

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Group Number(s): 17
1693436
OK 9/1/16Client: Illinois State

Delivery and Receipt Information

Delivery Method:	<u>UPS</u>	Arrival Timestamp:	<u>09/01/2016 10:00</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	No	VOA Vial Headspace \geq 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Timothy Cubberley (6520) at 12:20 on 09/01/2016

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

APPENDIX E

Analytical Data for Biota



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

15 August 2016

Jeffery Levensgood
University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign, ILLINOIS 61820

RE: Trace Metals In Snails, Fish Liver And Fillet 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Patrick Garcia-Strickland". The signature is written in a cursive style with a large initial "P".

Patrick Garcia-Strickland
Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1 L Pond 6 North LMB 1	1606629-01	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
2 L Pond 6 North LMB 2	1606629-02	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
3 L Pond 6 North LMB 3	1606629-03	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
4 L Pond 6 North LMB 4	1606629-04	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
5 L Pond 6 North LMB 5	1606629-05	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
6 L Pond 6 North BLG 1	1606629-06	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
7 L Pond 6 North BLG 2	1606629-07	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
8 L Pond 6 North BLG 3	1606629-08	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
9 L Pond 6 North BLG 4	1606629-09	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
10 L Pond 6 North BLG 5	1606629-10	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
11 L Pond 6 North BEN 1	1606629-11	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
12 L Pond 6 North BEN 2	1606629-12	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
13 L Pond 6 North BEN 3	1606629-13	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
14 L Pond 6 North BEN 4	1606629-14	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
15 L Pond 6 North BEN 5	1606629-15	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
16 L Pond 6 Middle LMB 1	1606629-16	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
17 L Pond 6 Middle LMB 2	1606629-17	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
18 L Pond 6 Middle LMB 3	1606629-18	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
19 L Pond 6 Middle LMB 4	1606629-19	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
20 L Pond 6 Middle LMB 5	1606629-20	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
21 L Pond 6 Middle BLG 1	1606629-21	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
22 L Pond 6 Middle BLG 2	1606629-22	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
23 L Pond 6 Middle BLG 3	1606629-23	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
24 L Pond 6 Middle BLG 4	1606629-24	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
25 L Pond 6 Middle BLG 5	1606629-25	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
26 L Pond 6 Middle BEN 1	1606629-26	Tissue	22-Jun-16 00:00	23-Jun-16 09:25

Eurofins Frontier Global Sciences, Inc.

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Patrick Garcia-Strickland, Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
27 L Pond 6 Middle BEN 2	1606629-27	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
28 L Pond 6 Middle BEN 3	1606629-28	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
29 L Pond 6 Middle BEN 4	1606629-29	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
30 L Pond 6 Middle BEN 5	1606629-30	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
31 L Pond 6 South LMB 1	1606629-31	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
32 L Pond 6 South LMB 2	1606629-32	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
33 L Pond 6 South LMB 3	1606629-33	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
34 L Pond 6 South LMB 4	1606629-34	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
35 L Pond 6 South LMB 5	1606629-35	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
36 L Pond 6 South BLG 1	1606629-36	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
37 L Pond 6 South BLG 2	1606629-37	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
38 L Pond 6 South BLG 3	1606629-38	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
39 L Pond 6 South BLG 4	1606629-39	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
40 L Pond 6 South BLG 5	1606629-40	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
41 L Pond 6 South BEN 1	1606629-41	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
42 L Pond 6 South BEN 2	1606629-42	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
43 L Pond 6 South BEN 3	1606629-43	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
44 L Pond 6 South BEN 4	1606629-44	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
45 L Pond 6 South BEN 5	1606629-45	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
46 L Long Pond North LMB 1	1606629-46	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
47 L Long Pond North LMB 2	1606629-47	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
48 L Long Pond North LMB 3	1606629-48	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
49 L Long Pond North LMB 4	1606629-49	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
50 L Long Pond North LMB 5	1606629-50	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
51 L Long Pond North BLG 1	1606629-51	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
52 L Long Pond North BLG 2	1606629-52	Tissue	22-Jun-16 00:00	23-Jun-16 09:25

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Patrick Garcia-Strickland, Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
53 L Long Pond North BLG 3	1606629-53	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
54 L Long Pond North BLG 4	1606629-54	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
55 L Long Pond North BLG 5	1606629-55	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
61 L Long Pond Middle LMB 1	1606629-56	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
62 L Long Pond Middle LMB 2	1606629-57	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
63 L Long Pond Middle LMB 3	1606629-58	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
64 L Long Pond Middle LMB 4	1606629-59	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
65 L Long Pond Middle LMB 5	1606629-60	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
66 L Long Pond Middle BLG 1	1606629-61	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
67 L Long Pond Middle BLG 2	1606629-62	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
68 L Long Pond Middle BLG 3	1606629-63	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
69 L Long Pond Middle BLG 4	1606629-64	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
70 L Long Pond Middle BLG 5	1606629-65	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
71 L Long Pond Middle BEN 1	1606629-66	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
76 L Long Pond South LMB 1	1606629-67	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
77 L Long Pond South LMB 2	1606629-68	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
78 L Long Pond South LMB 3	1606629-69	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
79 L Long Pond South LMB 4	1606629-70	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
80 L Long Pond South LMB 5	1606629-71	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
81 L Long Pond South BLG 1	1606629-72	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
82 L Long Pond South BLG 2	1606629-73	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
83 L Long Pond South BLG 3	1606629-74	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
84 L Long Pond South BLG 4	1606629-75	Tissue	22-Jun-16 00:00	23-Jun-16 09:25
85 L Long Pond South BLG 5	1606629-76	Tissue	22-Jun-16 00:00	23-Jun-16 09:25

Eurofins Frontier Global Sciences, Inc.

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levengood**Reported:**
15-Aug-16 16:44

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/23/2016 9:25:00 AM . The samples were received intact, on-ice within a sealed cooler at 0 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

Trace metals preparation and analysis was performed by inductively coupled plasma mass spectrometry (ICP-MS) in accordance with EFGS-054, a modified EPA 1638.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Patrick Garcia-Strickland, Laboratory Director

Sample Receipt Checklist

EFGS Work Order: 1686629

Client: UI

Date & Time Received: 6/22/16 925

Date Labeled: 6/24/16 Labeled By: LM

Project: _____

Received By: CSP

Label Verified By: Cme

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID: <u>5225</u>	CF: <u>+0.1 °C</u>	Date/time: <u>6/22/16 925</u>	By: <u>CSP</u>
Cooler 1: <u>-0.1 °C</u>	w/CF: <u>0.0 °C</u>	Cooler 4: <u>°C</u>	w/CF: <u>°C</u>
Cooler 2: <u>°C</u>	w/CF: <u>°C</u>	Cooler 5: <u>°C</u>	w/CF: <u>°C</u>
Cooler 3: <u>°C</u>	w/CF: <u>°C</u>	Cooler 6: <u>°C</u>	w/CF: <u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>N</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1606629

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
Phone: 425-686-1996
Fax: 425-686-3096
info@FrontierGS.com
http://www.FrontierGS.com



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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:	
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:					Date:				TAT (business days): 20 (std)	
Project Name: pond 6 fish (LIVERS)		E-mail: levensgoo@illinois.edu									15 10 5 4 3 2 24 hrs.	
Report To: Jeff Levensgood		Contract/PO:					As, B, Be, Cd, Co, Cr, Hg, Pb, Mo, Sb, Se, Th, V, Zn				(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N	
Phone: 2173336767 Fax:		Phone: Fax:					EDD <input type="checkbox"/> Y <input type="checkbox"/> N QA <input type="checkbox"/> Standard <input type="checkbox"/> High				Comments	
E-mail: levensgoo@illinois.edu		E-mail:										
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time							
1	1 L	Pond 6 North LMB 1	1	TS		JL. DS		NA	x			
2	2 L	Pond 6 North LMB 2	1	x				"	x			
3	3 L	Pond 6 North LMB 3	1	x				"	x			
4	4 L	Pond 6 North LMB 4	1	x				"	x			
5	5 L	Pond 6 North LMB 5	1	x				"	x			
6	6 L	Pond 6 North BLG 1	1	x				"	x			
7	7 L	Pond 6 North BLG 2	1	x				"	x			
8	8 L	Pond 6 North BLG 3	1	x				"	x			
9	9 L	Pond 6 North BLG 4	1	x				"	x			
10	10 L	Pond 6 North BLG 5	1	x				"	x			
11	11 L	Pond 6 North BEN 1	1	x				"	x			
12	12 L	Pond 6 North BEN 2	1	x				"	x			
For Laboratory Use Only			Matrix Codes:		Relinquished By:		Received By:		Received By:			
COC Seal: <i>yes</i>		Comments:		FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other		<i>[Signature]</i> Name: <i>Jeff Levensgood</i>		<i>[Signature]</i> Name: <i>Amy Dickenson</i>		<i>[Signature]</i> Name: <i>Cosbin Power</i>		
Cooler Temp: <i>0.0°C</i>				Organization: <i>INHS</i>		Organization: <i>INHS</i>		Organization: <i>EFGS</i>				
Carrier: <i>ups</i>				Date & Time: <i>6/14/16 4:02pm</i>		Date & Time: <i>4:04 pm 6/16</i>		Date & Time: <i>6/22/16 9:25</i>				
VTSR: <i>925</i>				Tracking number: <i>12 619 179 01 5719 2611</i>								
# of Coolers:												
Sample Disposal:						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.						
<input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal – 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)						Customer Approval: _____ Date: _____						

1606629

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400
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info@FrontierGS.com
http://www.FrontierGS.com



Frontier Global Sciences

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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 fish (LIVERS)		E-mail: levengoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Report To: Jeff Levensgood		Contract/PO:									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)		
Address:		Invoice To: University of Illinois									EDD <input type="checkbox"/> Y <input type="checkbox"/> N		
Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866		Phone: Fax:									QA <input type="checkbox"/> Standard <input type="checkbox"/> High		
Phone: 2173336767 Fax:		E-mail: levengoo@illinois.edu		E-mail:						Comments			
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time								
1	13 L	Pond 6 North BEN 3	1	TS		JL. DS	NA	x					
2	14 L	Pond 6 North BEN 4	1	x			"	x					
3	15 L	Pond 6 North BEN 5	1	x			"	x					
4	16 L	Pond 6 Middle LMB 1	1	x			"	x					
5	17 L	Pond 6 Middle LMB 2	1	x			"	x					
6	18 L	Pond 6 Middle LMB 3	1	x			"	x					
7	19 L	Pond 6 Middle LMB 4	1	x			"	x					
8	20 L	Pond 6 Middle LMB 5	1	x			"	x					
9	21 L	Pond 6 Middle BLG 1	1	x			"	x					
10	22 L	Pond 6 Middle BLG 2	1	x			"	x					
11	23 L	Pond 6 Middle BLG 3	1	x			"	x					
12	24 L	Pond 6 Middle BLG 4	1	x			"	x					
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:			
COC Seal:		Comments:	FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other			Name:		Name:		Name:			
Cooler Temp:			Organization:		Organization:		Organization:						
Carrier:			Date & Time:		Date & Time:		Date & Time:						
VTSR:			Tracking number:										
# of Coolers:													
Sample Disposal: <input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal – 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
Customer Approval: _____						Date: _____							

1606629

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 fish (LIVERS)		E-mail: levensgoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.		
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Address:		Invoice To: University of Illinois									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N		
Phone: 2173336767 Fax:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									(If yes, please contact PM)		
E-mail: levensgoo@illinois.edu		Phone: Fax:		EDD <input type="checkbox"/> Y <input type="checkbox"/> N									
E-mail: levensgoo@illinois.edu		E-mail:						QA <input type="checkbox"/> Standard <input type="checkbox"/> High					
								Comments					
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time								
1	25 L	Pond 6 Middle BLG 5	1	TS		JL, DS	NA	x					
2	26 L	Pond 6 Middle BEN 1	1	x			"	x					
3	27 L	Pond 6 Middle BEN 2	1	x			"	x					
4	28 L	Pond 6 Middle BEN 3	1	x			"	x					
5	29 L	Pond 6 Middle BEN 4	1	x			"	x					
6	30 L	Pond 6 Middle BEN 5	1	x			"	x					
7	31 L	Pond 6 South LMB 1	1	x			"	x					
8	32 L	Pond 6 South LMB 2	1	x			"	x					
9	33 L	Pond 6 South LMB 3	1	x			"	x					
10	34 L	Pond 6 South LMB 4	1	x			"	x					
11	35 L	Pond 6 South LMB 5	1	x			"	x					
12	36 L	Pond 6 South BLG 1	1	x			"	x					
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:			
COC Seal:		Comments:		FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other		Name:		Name:		Name:			
Cooler Temp:						Organization:		Organization:		Organization:			
Carrier:						Date & Time:		Date & Time:		Date & Time:			
VTSR:						Tracking number:							
# of Coolers:						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
Sample Disposal: <input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal – 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)						Customer Approval: _____ Date: _____							

1606629

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400
 Bothell, WA 98011
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 Fax: 425-686-3096
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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:	
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61842		Phone: 2173336767 Fax:									Date:	
Project Name: pond 6 fish (LIVERS)		E-mail: levensgoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Report To: Jeff Levensgood		Contract/PO:									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)	
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									EDD <input type="checkbox"/> Y <input type="checkbox"/> N	
Phone: 2173336767 Fax:		Phone: Fax:									QA <input type="checkbox"/> Standard <input type="checkbox"/> High	
E-mail: levensgoo@illinois.edu		E-mail:										

No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time	Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	As, B, Be, Cd, Co, Cr, Hg, Pb, Mo, Sb, Se, Th, V, Zn											Comments	
1	37 L	Pond 6 South BLG 2	1	TS		JL, DS		NA	x												
2	38 L	Pond 6 South BLG 3	1	x				"	x												
3	39 L	Pond 6 South BLG 4	1	x				"	x												
4	40 L	Pond 6 South BLG 5	1	x				"	x												
5	41 L	Pond 6 South BEN 1	1	x				"	x												
6	42 L	Pond 6 South BEN 2	1	x				"	x												
7	43 L	Pond 6 South BEN 3	1	x				"	x												
8	44 L	Pond 6 South BEN 4	1	x				"	x												
9	45 L	Pond 6 South BEN 5	1	x				"	x												
10	46 L	Long Pond North LMB 1	1	x				"	x												
11	47 L	Long Pond North LMB 2	1	x				"	x												
12	48 L	Long Pond North LMB 3	1	x				"	x												

For Laboratory Use Only		Matrix Codes:		Relinquished By:		Received By:		Received By:		
COC Seal:	Comments:	FW: Fresh Water	SW: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other	Name:		Name:		Name:		
Cooler Temp:		Organization:		Organization:		Organization:				
Carrier:		Date & Time:		Date & Time:		Date & Time:				
VTSR:		Tracking number:								
# of Coolers:										

Sample Disposal:

Return (shipping fees may apply)

Standard Disposal – 30 Days after report

Retain for _____ weeks after report (storage fees may apply)

By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.

Customer Approval: _____ Date: _____

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Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 fish (LIVERS)		E-mail: levensgood@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.		
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N		
Phone: 2173336767 Fax:		Phone: Fax:									(If yes, please contact PM)		
E-mail: levensgood@illinois.edu		E-mail:		EDD <input type="checkbox"/> Y <input type="checkbox"/> N									
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time							QA <input type="checkbox"/> Standard <input type="checkbox"/> High	
1	49L	Long Pond North LMB 4	1	TS		JL. DS		NA	x				Comments
2	50L	Long Pond North LMB 5	1	x				"	x				
3	51L	Long Pond North BLG 1	1	x				"	x				
4	52L	Long Pond North BLG 2	1	x				"	x				
5	53L	Long Pond North BLG 3	1	x				"	x				
6	54L	Long Pond North BLG 4	1	x				"	x				
7	55L	Long Pond North BLG 5	1	x				"	x				
8	 	Long Pond North BEN 1	1	x	 	 	 	"	x	 	 	 	
9	 	Long Pond North BEN 2	1	x	 	 	 	"	x	 	 	 	
10	 	Long Pond North BEN 3	1	x	 	 	 	"	x	 	 	 	
11	 	Long Pond North BEN 4	1	x	 	 	 	"	x	 	 	 	
12	 	Long Pond North BEN 5	1	x	 	 	 	"	x	 	 	 	
For Laboratory Use Only		Matrix Codes:		Relinquished By:		Received By:		Received By:					
COC Seal:	Comments:	FW: Fresh Water		Name: Jeff Levensgood		Name: Amy Dickinson		Name:					
Cooler Temp:		WW: Waste Water											
Carrier:		SB: Sea and Brackish Water		Organization: INHS		Organization: INHS		Organization:					
VTSR:		SS: Soil and Sediment		Date & Time: 6/15/16 4pm		Date & Time: 6/15/16 4pm		Date & Time:					
# of Coolers:		TS: Plant and Animal Tissue		Tracking number:									
		HC: Hydrocarbons											
		TR: Trap											
		OT: Other											
Sample Disposal:						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
<input type="checkbox"/> Return (shipping fees may apply)						Customer Approval: _____ Date: _____							
<input type="checkbox"/> Standard Disposal – 30 Days after report													
<input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)													

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Chain of Custody Record & Laboratory Analysis Request:
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Hydrocarbon & Other Samples

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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:	
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:	
Project Name: pond 6 fish (LIVERS)		E-mail: levengoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.	
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N	
Phone: 2173336767 Fax:		Phone: Fax:									EDD <input type="checkbox"/> Y <input type="checkbox"/> N	
E-mail: levengoo@illinois.edu		E-mail:		QA <input type="checkbox"/> Standard <input type="checkbox"/> High								
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time							Comments
1	61 L	Long Pond Middle LMB 1	1	TS		JL. DS		NA	x			
2	62 L	Long Pond Middle LMB 2	1	x				"	x			
3	63 L	Long Pond Middle LMB 3	1	x				"	x			
4	64 L	Long Pond Middle LMB 4	1	x				"	x			
5	65 L	Long Pond Middle LMB 5	1	x				"	x			
6	66 L	Long Pond Middle BLG 1	1	x				"	x			
7	67 L	Long Pond Middle BLG 2	1	x				"	x			
8	68 L	Long Pond Middle BLG 3	1	x				"	x			
9	69 L	Long Pond Middle BLG 4	1	x				"	x			
10	70 L	Long Pond Middle BLG 5	1	x				"	x			
11	71 L	Long Pond Middle BEN 1	1	x				"	x			
12	72 L	Long Pond Middle BEN 2	1	x				"	x			
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:		
COC Seal:	Comments:		FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other			Name:		Name:		Name:		
Cooler Temp:						Organization:		Organization:		Organization:		
Carrier:						Date & Time:		Date & Time:		Date & Time:		
VTSR:						Tracking number:						
# of Coolers:												
Sample Disposal:						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.						
<input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal - 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)						Customer Approval: _____ Date: _____						



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Form containing client information (University of Illinois), contact details (Jeff Levensgood), project name (pond 6 fish LIVERS), and a table of samples with columns for No., Bag ID, Sample ID, Matrix, Date & Time, and various analysis parameters. Includes sections for laboratory use, matrix codes, and sample disposal instructions.

1606629

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

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info@FrontierGS.com
http://www.FrontierGS.com



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Page 16 of 16

Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 fish (LIVERS)		E-mail: levengoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.		
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N		
Phone: 2173336767 Fax:		Phone: Fax:									(If yes, please contact PM)		
E-mail: levengoo@illinois.edu		E-mail:		EDD <input type="checkbox"/> Y <input type="checkbox"/> N									
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time							QA <input type="checkbox"/> Standard <input type="checkbox"/> High	
1	85L	Long Pond South BLG 5	1	TS		JL. DS		NA	x				Comments
2		Long Pond South BEN 1	1	x				"	x				
3		Long Pond South BEN 2	1	x				"	x				
4		Long Pond South BEN 3	1	x				"	x				
5		Long Pond South BEN 4	1	x				"	x				
6		Long Pond South BFN 5	1	x				"	x				
7													
8													
9													
10													
11													
12													
For Laboratory Use Only			Matrix Codes:		Relinquished By:		Received By:		Received By:				
COC Seal:	Comments:		FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other		Name:		Name:		Name:				
Cooler Temp:					Organization:		Organization:		Organization:				
Carrier:					Date & Time:		Date & Time:		Date & Time:				
VTSR:					Tracking number:								
# of Coolers:													
Sample Disposal:					By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.								
<input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal – 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)					Customer Approval: _____ Date: _____								

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

1 L Pond 6 North LMB 1
1606629-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	74.4	-	19.5	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.19	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.076	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.28	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.076	-	0.010	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.10	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.03	mg/kg	5	F607191	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.024	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	1.58	-	0.29	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.009	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	ND	-	0.143	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Zinc	18.4	-	0.24	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

2 L Pond 6 North LMB 2
1606629-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	134	-	19.5	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.20	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.078	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.35	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.132	-	0.010	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.15	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.27	-	0.03	mg/kg	5	F607191	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Lead	ND	-	0.020	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.025	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.31	-	0.29	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.009	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.396	-	0.147	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	24.0	-	0.25	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

3 L Pond 6 North LMB 3
1606629-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
---------	--------	-----------------	-----------------	-------	----------	-------	----------	----------	----------	--------	-------

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	111	-	18.5	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.16	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.063	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	1.89	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.095	-	0.008	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.09	-	0.04	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.35	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	QB-01
Lead	ND	-	0.016	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.020	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.49	-	0.24	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.011	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.306	-	0.118	mg/kg	5	F607191	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Zinc	24.5	-	0.20	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

4 L Pond 6 North LMB 4
1606629-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	65.3	-	18.6	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.17	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.069	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.06	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.122	-	0.009	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.07	-	0.04	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.19	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.017	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.021	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	1.47	-	0.26	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.007	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.327	-	0.129	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	17.2	-	0.21	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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5 L Pond 6 North LMB 5
1606629-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	48.3	-	19.3	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.17	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.067	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.02	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.090	-	0.008	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.34	-	0.04	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.20	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.017	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.021	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.11	-	0.25	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.005	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	ND	-	0.126	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	QB-02, U
Zinc	24.9	-	0.21	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

6 L Pond 6 North BLG 1
1606629-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	23.1	-	7.75	ng/g	100	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.30	-	0.28	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Beryllium	ND	-	0.113	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	3.38	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.139	-	0.014	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.55	-	0.07	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.21	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.22	-	0.08	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.028	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.035	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	1.70	-	0.42	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.004	-	0.004	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.254	-	0.211	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	25.0	-	0.35	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	



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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

7 L Pond 6 North BLG 2
1606629-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.32	-	0.11	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.044	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.32	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.253	-	0.006	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.42	-	0.03	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	8.87	-	0.08	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Mercury	35.4	-	4.1	ng/g	20	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.28	-	0.02	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.015	-	0.011	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.014	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	3.22	-	0.17	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	0.009	-	0.001	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Vanadium	0.702	-	0.083	mg/kg	2	F607190	20-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	26.7	-	0.14	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

8 L Pond 6 North BLG 3
1606629-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	36.8	-	1.56	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.21	-	0.10	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Beryllium	ND	-	0.041	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	1.23	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.400	-	0.005	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.56	-	0.03	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.08	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.21	-	0.03	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	0.012	-	0.010	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Antimony	ND	-	0.013	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.26	-	0.15	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.004	-	0.001	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.402	-	0.077	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	20.4	-	0.13	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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9 L Pond 6 North BLG 4
1606629-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	17.9	-	1.38	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.25	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.101	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	3.02	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.158	-	0.013	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.24	-	0.06	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.19	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.19	-	0.08	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.025	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.031	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.06	-	0.38	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.003	-	0.003	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Vanadium	0.284	-	0.189	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	21.7	-	0.31	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

10 L Pond 6 North BLG 5
1606629-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	34.9	-	1.50	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	1.05	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.421	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	12.6	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.258	-	0.053	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.54	-	0.26	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.79	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.46	-	0.32	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.105	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.132	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	3.82	-	1.58	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	ND	-	0.013	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Vanadium	0.818	-	0.789	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	30.0	-	1.32	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

11 L Pond 6 North BEN 1
1606629-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	21.8	-	1.46	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.14	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.054	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	1.63	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.044	-	0.007	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.07	-	0.03	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.10	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.17	-	0.04	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	0.020	-	0.014	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Antimony	ND	-	0.017	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	1.76	-	0.20	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Vanadium	ND	-	0.102	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	QB-02, U
Zinc	41.9	-	0.17	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

12 L Pond 6 North BEN 2
1606629-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.37	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.148	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	4.43	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.119	-	0.018	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	ND	-	0.09	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Chromium	ND	-	0.28	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	29.5	-	13.8	ng/g	20	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.34	-	0.06	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.037	-	0.037	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.046	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	2.75	-	0.55	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.005	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	ND	-	0.277	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, QM-12, U
Zinc	79.2	-	0.46	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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13 L Pond 6 North BEN 3
1606629-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	55.1	-	18.2	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.22	-	0.17	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Beryllium	ND	-	0.069	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.08	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.110	-	0.009	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.08	-	0.04	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.74	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	QB-01
Lead	0.147	-	0.017	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Antimony	ND	-	0.022	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	1.50	-	0.26	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Vanadium	0.372	-	0.130	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	22.7	-	0.22	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

14 L Pond 6 North BEN 4
1606629-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.19	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.078	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.33	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.051	-	0.010	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	ND	-	0.05	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Chromium	ND	-	0.15	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	15.5	-	2.9	ng/g	20	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.11	-	0.03	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	U
Antimony	ND	-	0.024	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.50	-	0.29	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	ND	-	0.146	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, QM-12, U
Zinc	37.4	-	0.24	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

15 L Pond 6 North BEN 5
1606629-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.45	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.181	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	5.43	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.042	-	0.023	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	ND	-	0.11	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Chromium	ND	-	0.34	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	ND	-	17.0	ng/g	20	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	U
Molybdenum	0.16	-	0.07	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.057	-	0.045	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.057	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.68	-	0.68	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.006	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	ND	-	0.340	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, QM-12, U
Zinc	33.2	-	0.57	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

16 L Pond 6 Middle LMB 1
1606629-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	125	-	17.9	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.18	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.072	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.17	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.212	-	0.009	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.17	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.26	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.018	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.023	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.37	-	0.27	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.014	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.326	-	0.136	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	22.6	-	0.23	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

17 L Pond 6 Middle LMB 2
1606629-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	91.4	-	17.1	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.18	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.070	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.11	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.125	-	0.009	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.09	-	0.04	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.20	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.018	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.022	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	1.56	-	0.26	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.007	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.168	-	0.132	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	18.9	-	0.22	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

18 L Pond 6 Middle LMB 3
1606629-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	369	-	17.6	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.18	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.071	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.13	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.359	-	0.009	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.28	-	0.04	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.27	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	QB-01
Lead	0.019	-	0.018	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Antimony	ND	-	0.022	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.62	-	0.27	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.014	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	1.22	-	0.133	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	26.6	-	0.22	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

19 L Pond 6 Middle LMB 4
160629-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	57.9	-	35.7	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.21	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.083	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.49	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.251	-	0.010	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.45	-	0.05	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.16	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.30	-	0.06	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.021	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.026	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.79	-	0.31	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.021	-	0.003	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	ND	-	0.156	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	QB-02, U
Zinc	27.3	-	0.26	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

20 L Pond 6 Middle LMB 5
1606629-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	123	-	18.7	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.19	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.076	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.28	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.231	-	0.009	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.13	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.21	-	0.06	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.024	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.34	-	0.28	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.009	-	0.002	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	ND	-	0.142	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	QB-02, U
Zinc	24.0	-	0.24	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

21 L Pond 6 Middle BLG 1
1606629-21

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	70.4	-	35.2	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.27	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.109	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	3.26	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.266	-	0.014	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.09	-	0.07	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.20	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.17	-	0.08	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.027	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.034	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	1.90	-	0.41	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.009	-	0.003	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.397	-	0.204	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	25.3	-	0.34	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

22 L Pond 6 Middle BLG 2
1606629-22

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	24.0	-	1.63	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.23	-	0.20	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Beryllium	ND	-	0.080	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.40	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.260	-	0.010	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.26	-	0.05	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.06	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.020	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.025	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	2.14	-	0.30	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.007	-	0.003	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.382	-	0.150	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	23.1	-	0.25	mg/kg	5	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

23 L Pond 6 Middle BLG 3
1606629-23

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	41.6	-	1.41	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	1.86	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.744	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	22.3	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.301	-	0.093	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	ND	-	0.47	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Chromium	ND	-	1.40	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	ND	-	0.56	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Lead	ND	-	0.186	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.233	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	ND	-	2.79	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Thallium	ND	-	0.023	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Vanadium	ND	-	1.40	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	QB-02, U
Zinc	41.4	-	2.33	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

24 L Pond 6 Middle BLG 4
1606629-24

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	55.3	-	37.6	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.18	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Beryllium	ND	-	0.071	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Boron	ND	-	2.12	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Cadmium	0.420	-	0.009	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Cobalt	0.10	-	0.04	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.05	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Lead	ND	-	0.018	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Antimony	ND	-	0.022	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	U
Selenium	1.55	-	0.26	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Thallium	0.008	-	0.002	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Vanadium	0.271	-	0.132	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	
Zinc	22.9	-	0.22	mg/kg	2	F607191	13-Jul-16	6G21008	20-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

25 L Pond 6 Middle BLG 5
1606629-25

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	55.8	-	38.5	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.51	-	0.49	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.194	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	5.83	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.428	-	0.024	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.26	-	0.12	mg/kg	2	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.36	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.58	-	0.15	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.049	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.061	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	3.42	-	0.73	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.021	-	0.006	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	0.594	-	0.364	mg/kg	2	F607404	13-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	36.1	-	0.61	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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26 L Pond 6 Middle BEN 1
1606629-26

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.12	-	0.12	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.046	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.39	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.102	-	0.006	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.06	-	0.03	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.09	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	28.4	-	4.3	ng/g	20	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.24	-	0.02	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.047	-	0.012	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.014	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	2.71	-	0.17	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.001	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	U
Vanadium	0.220	-	0.087	mg/kg	2	F607190	20-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	60.0	-	0.14	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

27 L Pond 6 Middle BEN 2
1606629-27

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	103	-	16.9	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.22	-	0.20	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.078	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.34	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.527	-	0.010	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.09	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.53	-	0.06	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	QB-01
Lead	0.294	-	0.020	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Antimony	0.032	-	0.024	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Selenium	2.27	-	0.29	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Vanadium	1.86	-	0.146	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	22.2	-	0.24	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

28 L Pond 6 Middle BEN 3
1606629-28

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.16	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.064	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.92	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.141	-	0.008	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.07	-	0.04	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	59.7	-	12.0	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.38	-	0.02	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.098	-	0.016	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.020	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	2.34	-	0.24	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Vanadium	0.560	-	0.120	mg/kg	5	F607190	20-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	31.7	-	0.20	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director


University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levengood

Reported:
15-Aug-16 16:44

29 L Pond 6 Middle BEN 4
1606629-29

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.19	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.078	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.34	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.181	-	0.010	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.08	-	0.05	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	55.3	-	14.6	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.28	-	0.03	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.048	-	0.019	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.024	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	2.31	-	0.29	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	0.415	-	0.146	mg/kg	5	F607190	20-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	49.6	-	0.24	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	



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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

30 L Pond 6 Middle BEN 5
1606629-30

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.27	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.107	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	3.21	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.026	-	0.013	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	ND	-	0.07	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	U
Chromium	ND	-	0.20	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	14.4	-	10.0	ng/g	20	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.05	-	0.04	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	ND	-	0.027	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Antimony	ND	-	0.033	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.29	-	0.40	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.003	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	ND	-	0.200	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, QM-12, U
Zinc	41.0	-	0.33	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

31 L Pond 6 South LMB 1
1606629-31

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	165	-	19.2	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.20	-	0.16	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.064	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	1.92	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.286	-	0.008	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.29	-	0.04	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.26	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	QB-01
Lead	0.031	-	0.016	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Antimony	ND	-	0.020	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	2.37	-	0.24	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.019	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	0.355	-	0.120	mg/kg	5	F607404	13-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	22.9	-	0.20	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	

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University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

32 L Pond 6 South LMB 2
1606629-32

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	254	-	19.1	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.19	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Beryllium	ND	-	0.076	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.28	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.399	-	0.010	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.16	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.26	-	0.06	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.024	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	3.40	-	0.29	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.072	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	0.503	-	0.143	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	27.5	-	0.24	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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33 L Pond 6 South LMB 3
1606629-33

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	119	-	38.5	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.18	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Beryllium	ND	-	0.072	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.15	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.229	-	0.009	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.19	-	0.04	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.22	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.018	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.022	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.71	-	0.27	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.027	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.135	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	21.7	-	0.22	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

34 L Pond 6 South LMB 4
1606629-34

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	66.4	-	39.4	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.46	-	0.21	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.082	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.47	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.666	-	0.010	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.48	-	0.05	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.17	-	0.06	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.021	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.026	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.95	-	0.31	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.023	-	0.003	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.154	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	24.7	-	0.26	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

35 L Pond 6 South LMB 5
1606629-35

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	239	-	18.6	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.15	-	0.15	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.058	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	1.75	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.439	-	0.007	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.14	-	0.04	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.11	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.19	-	0.04	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.015	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.018	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.87	-	0.22	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.010	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	0.128	-	0.110	mg/kg	5	F607404	13-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	25.0	-	0.18	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

36 L Pond 6 South BLG 1
1606629-36

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.37	-	0.17	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.066	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.99	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.318	-	0.008	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.96	-	0.04	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	93.3	-	12.4	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.20	-	0.02	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.030	-	0.017	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.021	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.74	-	0.25	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	0.033	-	0.002	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Vanadium	0.235	-	0.124	mg/kg	5	F607190	20-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	22.1	-	0.21	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
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 Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

37 L Pond 6 South BLG 2
1606629-37

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.52	-	0.16	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.065	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.95	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.234	-	0.008	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.61	-	0.04	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	53.7	-	12.2	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.17	-	0.02	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	ND	-	0.016	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Antimony	ND	-	0.020	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.38	-	0.24	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	0.033	-	0.002	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Vanadium	ND	-	0.122	mg/kg	5	F607190	20-Jul-16	6G27021	27-Jul-16	FGS-054	U
Zinc	25.1	-	0.20	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

38 L Pond 6 South BLG 3
1606629-38

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.28	-	0.19	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.075	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.26	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.183	-	0.009	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.94	-	0.05	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	42.4	-	14.1	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.20	-	0.03	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Antimony	ND	-	0.024	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.60	-	0.28	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	0.013	-	0.002	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Vanadium	0.245	-	0.153	mg/kg	5	F607190	20-Jul-16	6G27021	27-Jul-16	FGS-054	Z-15
Zinc	22.1	-	0.24	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

39 L Pond 6 South BLG 4
1606629-39

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	44.3	-	1.61	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.31	-	0.11	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.045	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	1.34	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.205	-	0.006	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.72	-	0.03	mg/kg	2	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.08	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.20	-	0.03	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	QB-01
Lead	0.014	-	0.011	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Antimony	ND	-	0.014	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.77	-	0.17	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.006	-	0.001	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	0.092	-	0.084	mg/kg	2	F607404	13-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	22.3	-	0.14	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

40 L Pond 6 South BLG 5
1606629-40

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	60.8	-	41.0	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.33	-	0.14	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.057	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	1.72	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.103	-	0.007	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.04	-	0.04	mg/kg	2	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.11	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.11	-	0.04	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.014	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.018	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.32	-	0.21	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.023	-	0.002	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.107	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	25.1	-	0.18	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	




University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

41 L Pond 6 South BEN 1
1606629-41

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.19	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.077	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.30	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.034	-	0.010	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	ND	-	0.05	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Chromium	ND	-	0.14	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	33.5	-	14.4	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.16	-	0.03	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.020	-	0.019	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.024	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.26	-	0.29	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	ND	-	0.144	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, QM-12, U
Zinc	30.3	-	0.24	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levengood

Reported:
15-Aug-16 16:44

42 L Pond 6 South BEN 2
1606629-42

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.15	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.061	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.84	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.123	-	0.008	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	ND	-	0.04	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Chromium	ND	-	0.12	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	54.2	-	11.5	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.18	-	0.02	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.045	-	0.015	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.019	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.31	-	0.23	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	0.202	-	0.125	mg/kg	5	F607190	20-Jul-16	6G27021	27-Jul-16	FGS-054	Z-15
Zinc	33.1	-	0.19	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

43 L Pond 6 South BEN 3
1606629-43

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.13	-	0.13	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.052	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.56	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.065	-	0.006	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.03	-	0.03	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	U
Chromium	ND	-	0.10	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	51.4	-	24.3	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.17	-	0.02	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.029	-	0.013	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.016	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.95	-	0.19	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	ND	-	0.105	mg/kg	2	F607190	20-Jul-16	6G27021	27-Jul-16	FGS-054	Z-15, U
Zinc	60.9	-	0.16	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

44 L Pond 6 South BEN 4
1606629-44

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	28.2	-	18.8	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.16	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Beryllium	ND	-	0.063	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	1.88	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.025	-	0.008	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	ND	-	0.04	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	QM-12, U
Chromium	ND	-	0.12	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.10	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	0.041	-	0.016	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Antimony	ND	-	0.020	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.52	-	0.24	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Vanadium	0.229	-	0.118	mg/kg	5	F607404	13-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	26.9	-	0.20	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

45 L Pond 6 South BEN 5
1606629-45

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.20	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Beryllium	ND	-	0.080	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.41	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.026	-	0.010	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.06	-	0.05	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	29.0	-	7.5	ng/g	20	F607331	20-Jul-16	6G27004	26-Jul-16	EPA 1631B	
Molybdenum	0.27	-	0.03	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	ND	-	0.020	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Antimony	ND	-	0.025	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	2.39	-	0.30	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.003	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	ND	-	0.150	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, QM-12, U
Zinc	34.7	-	0.25	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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46 L Long Pond North LMB 1
1606629-46

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	146	-	35.5	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.20	-	0.19	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.078	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.33	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.214	-	0.010	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.36	-	0.05	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.32	-	0.06	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.024	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.54	-	0.29	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.010	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.146	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	30.1	-	0.24	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

47 L Long Pond North LMB 2
1606629-47

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	131	-	19.5	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.17	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Beryllium	ND	-	0.069	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.07	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.226	-	0.009	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.15	-	0.04	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.20	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.017	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.022	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	2.28	-	0.26	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.013	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.129	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	27.2	-	0.22	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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48 L Long Pond North LMB 3
1606629-48


Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	128	-	40.0	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.35	-	0.16	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.066	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	1.97	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.065	-	0.008	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.66	-	0.04	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.016	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.020	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.58	-	0.25	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.007	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.123	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	28.7	-	0.20	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

49 L Long Pond North LMB 4
1606629-49

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	93.0	-	7.81	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.21	-	0.18	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.072	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.15	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.093	-	0.009	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.56	-	0.04	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.25	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.018	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.022	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.41	-	0.27	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.008	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.135	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	27.2	-	0.22	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

50 L Long Pond North LMB 5
1606629-50

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.53	-	0.14	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.057	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.70	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.017	-	0.007	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.52	-	0.04	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.11	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	89.5	-	26.6	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.24	-	0.02	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	ND	-	0.014	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Antimony	ND	-	0.018	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.42	-	0.21	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	0.007	-	0.002	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Vanadium	ND	-	0.106	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, QM-12, U
Zinc	32.4	-	0.18	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

51 L Long Pond North BLG 1
1606629-51

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.65	-	0.19	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.075	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.24	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.063	-	0.009	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.55	-	0.05	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Mercury	64.3	-	14.0	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.23	-	0.03	mg/kg	5	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Antimony	ND	-	0.023	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.64	-	0.28	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	5	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	U
Vanadium	0.605	-	0.140	mg/kg	5	F607190	20-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	22.8	-	0.23	mg/kg	5	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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52 L Long Pond North BLG 2
1606629-52

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	78.4	-	39.7	ng/g	500	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	1.10	-	0.12	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.048	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	1.44	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.026	-	0.006	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.15	-	0.03	mg/kg	2	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.09	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.19	-	0.04	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.012	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.015	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.60	-	0.18	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.002	-	0.001	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	0.375	-	0.090	mg/kg	2	F607404	13-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	22.0	-	0.15	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
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53 L Long Pond North BLG 3
1606629-53

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	34.3	-	1.57	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.31	-	0.12	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.048	mg/kg	2	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	U
Boron	ND	-	1.44	mg/kg	2	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	U
Cadmium	0.018	-	0.006	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.13	-	0.03	mg/kg	2	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.09	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.04	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.012	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.015	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	0.86	-	0.18	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	0.138	-	0.090	mg/kg	2	F607404	13-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	16.3	-	0.15	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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54 L Long Pond North BLG 4
1606629-54


Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	37.7	-	1.46	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.44	-	0.19	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.078	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.33	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.021	-	0.010	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.35	-	0.05	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.19	-	0.06	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.024	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.52	-	0.29	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Vanadium	ND	-	0.146	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	19.6	-	0.24	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

55 L Long Pond North BLG 5
1606629-55

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	47.9	-	1.45	ng/g	20	F607089	05-Jul-16	6G06007	06-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	1.13	-	0.16	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.064	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	1.91	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.038	-	0.008	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.15	-	0.04	mg/kg	2	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.29	-	0.05	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.016	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.020	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.53	-	0.24	mg/kg	2	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.008	-	0.002	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	0.281	-	0.119	mg/kg	2	F607404	13-Jul-16	6G27021	27-Jul-16	FGS-054	
Zinc	27.2	-	0.20	mg/kg	2	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

61 L Long Pond Middle LMB 1
1606629-56

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	170	-	7.87	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.56	-	0.17	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.068	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.03	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.022	-	0.008	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.72	-	0.04	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.25	-	0.05	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.017	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.021	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.30	-	0.25	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.010	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.127	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	24.5	-	0.21	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

62 L Long Pond Middle LMB 2
1606629-57

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	121	-	7.75	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.28	-	0.19	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Beryllium	ND	-	0.075	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Boron	ND	-	2.24	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Cadmium	0.039	-	0.009	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Cobalt	0.61	-	0.05	mg/kg	5	F607192	13-Jul-16	6G22006	22-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.06	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	U
Antimony	ND	-	0.023	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Selenium	1.30	-	0.28	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Thallium	0.007	-	0.002	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	
Vanadium	ND	-	0.140	mg/kg	5	F607404	13-Jul-16	6G27007	26-Jul-16	FGS-054	QB-02, U
Zinc	26.8	-	0.23	mg/kg	5	F607192	13-Jul-16	6G21008	21-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

63 L Long Pond Middle LMB 3
1606629-58


Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	172	-	19.3	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.29	-	0.15	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.060	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.81	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.159	-	0.008	mg/kg	5	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Cobalt	0.46	-	0.04	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.11	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, U
Molybdenum	0.20	-	0.02	mg/kg	5	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.015	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.019	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.45	-	0.23	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.007	-	0.002	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.113	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	25.7	-	0.19	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



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 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

64 L Long Pond Middle LMB 4
1606629-59

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	148	-	7.87	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.93	-	0.10	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.041	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.22	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.017	-	0.005	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.62	-	0.03	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.08	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.27	-	0.03	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	QB-01
Lead	ND	-	0.010	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.013	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.82	-	0.15	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.017	-	0.001	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.191	mg/kg	5	F607377	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Zinc	25.9	-	0.13	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

65 L Long Pond Middle LMB 5
1606629-60

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	160	-	9.09	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.58	-	0.30	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.119	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	3.57	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	ND	-	0.015	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cobalt	0.60	-	0.07	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.22	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.24	-	0.04	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.030	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.037	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.54	-	0.45	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.015	-	0.004	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.223	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	25.9	-	0.37	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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**66 L Long Pond Middle BLG 1
1606629-61**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	63.5	-	7.75	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	1.03	-	0.20	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.079	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.36	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.020	-	0.010	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.18	-	0.05	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.17	-	0.03	mg/kg	5	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.020	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.025	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.32	-	0.30	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.006	-	0.002	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	0.341	-	0.148	mg/kg	5	F607377	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	18.1	-	0.25	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

67 L Long Pond Middle BLG 2
1606629-62


Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	42.1	-	7.94	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.52	-	0.20	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.080	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.39	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.025	-	0.010	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.40	-	0.05	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.17	-	0.03	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.020	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.025	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.71	-	0.30	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Vanadium	0.462	-	0.149	mg/kg	2	F607377	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	16.7	-	0.25	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

68 L Long Pond Middle BLG 3
1606629-63

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	156	-	7.87	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.28	-	0.16	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.062	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.87	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.084	-	0.008	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.17	-	0.04	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.14	-	0.05	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Lead	ND	-	0.016	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.019	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	0.88	-	0.23	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.005	-	0.002	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	0.175	-	0.117	mg/kg	2	F607377	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	19.7	-	0.19	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

69 L Long Pond Middle BLG 4
1606629-64

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	67.0	-	7.87	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.24	-	0.13	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.052	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.55	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.075	-	0.006	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.77	-	0.03	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.10	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.22	-	0.04	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Lead	ND	-	0.013	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.016	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.22	-	0.19	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.004	-	0.002	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	0.139	-	0.097	mg/kg	2	F607377	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	26.6	-	0.16	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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70 L Long Pond Middle BLG 5
1606629-65

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	52.8	-	7.69	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.46	-	0.31	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.124	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	3.73	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.018	-	0.016	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.20	-	0.08	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.23	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.05	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.031	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.039	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.26	-	0.47	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	ND	-	0.004	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Vanadium	ND	-	0.233	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	23.7	-	0.39	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



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1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

71 L Long Pond Middle BEN 1
1606629-66

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.45	-	0.39	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Beryllium	ND	-	0.157	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	4.71	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.025	-	0.020	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Cobalt	0.12	-	0.10	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Chromium	ND	-	0.29	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	U
Mercury	80.8	-	73.6	ng/g	100	F607331	20-Jul-16	6G23002	22-Jul-16	EPA 1631B	
Molybdenum	0.06	-	0.06	mg/kg	2	F607378	20-Jul-16	6G26008	26-Jul-16	FGS-054	
Lead	0.146	-	0.039	mg/kg	2	F607190	20-Jul-16	6G26009	26-Jul-16	FGS-054	
Antimony	ND	-	0.049	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.03	-	0.59	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	
Thallium	ND	-	0.005	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	QM-12, U
Vanadium	0.365	-	0.294	mg/kg	2	F607190	20-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	45.9	-	0.49	mg/kg	2	F607190	20-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

76 L Long Pond South LMB 1
1606629-67

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	147	-	7.81	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.51	-	0.14	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.057	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.72	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.022	-	0.007	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.53	-	0.04	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.11	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.22	-	0.02	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.014	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.018	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.01	-	0.22	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.010	-	0.002	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.108	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	21.0	-	0.18	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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**77 L Long Pond South LMB 2
1606629-68**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	175	-	7.81	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.23	-	0.17	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.067	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.01	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.047	-	0.008	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.31	-	0.04	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.03	mg/kg	5	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.017	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.021	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.01	-	0.25	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.006	-	0.002	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.126	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	19.9	-	0.21	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

78 L Long Pond South LMB 3
1606629-69

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	330	-	7.94	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.29	-	0.15	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.061	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.84	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.585	-	0.008	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	1.06	-	0.04	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.24	-	0.02	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	0.043	-	0.015	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Antimony	ND	-	0.019	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.55	-	0.23	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.007	-	0.002	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.115	mg/kg	2	F607377	13-Jul-16	6G27007	26-Jul-16	FGS-054	U
Zinc	26.2	-	0.19	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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**79 L Long Pond South LMB 4
1606629-70**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	185	-	7.87	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.33	-	0.18	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.074	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.21	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.063	-	0.009	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.65	-	0.05	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.24	-	0.03	mg/kg	5	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.018	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.023	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.43	-	0.28	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.008	-	0.002	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.138	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	26.8	-	0.23	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

80 L Long Pond South LMB 5
1606629-71

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	211	-	7.69	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.98	-	0.19	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.074	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.23	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.118	-	0.009	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	1.32	-	0.05	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.28	-	0.03	mg/kg	5	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.019	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.023	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.80	-	0.28	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.017	-	0.002	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.140	mg/kg	5	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	34.6	-	0.23	mg/kg	5	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

81 L Long Pond South BLG 1
1606629-72


Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	72.2	-	7.94	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.35	-	0.20	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.078	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.35	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.125	-	0.010	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.10	-	0.05	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.11	-	0.03	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.020	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.024	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.01	-	0.29	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.008	-	0.002	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.147	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	23.5	-	0.24	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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82 L Long Pond South BLG 2
1606629-73

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	114	-	9.80	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.80	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	U
Beryllium	ND	-	0.321	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	9.62	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	ND	-	0.040	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cobalt	ND	-	0.20	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Chromium	ND	-	0.60	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	ND	-	0.24	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	QB-02, U
Lead	ND	-	0.080	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.100	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	ND	-	1.20	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	U
Thallium	ND	-	0.010	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Vanadium	ND	-	0.601	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	11.0	-	1.00	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	



University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

83 L Long Pond South BLG 3
1606629-74

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	62.6	-	7.87	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.24	-	0.12	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Beryllium	ND	-	0.048	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	1.44	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.031	-	0.006	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.50	-	0.03	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.09	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.16	-	0.02	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.012	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.015	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.02	-	0.18	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.003	-	0.002	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	0.137	-	0.090	mg/kg	2	F607377	13-Jul-16	6G27007	26-Jul-16	FGS-054	
Zinc	18.9	-	0.15	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	

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1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

84 L Long Pond South BLG 4
1606629-75

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	63.9	-	7.81	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	0.20	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	U
Beryllium	ND	-	0.081	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	2.43	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	0.180	-	0.010	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Cobalt	0.49	-	0.05	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.15	-	0.03	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.020	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.025	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.07	-	0.30	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	0.004	-	0.003	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Vanadium	ND	-	0.152	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	18.6	-	0.25	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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85 L Long Pond South BLG 5
1606629-76

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	84.4	-	9.71	ng/g	100	F607090	05-Jul-16	6G07010	07-Jul-16	EPA 1631B	
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	ND	-	1.05	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	U
Beryllium	ND	-	0.421	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Boron	ND	-	12.6	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cadmium	ND	-	0.053	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Cobalt	0.50	-	0.26	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	
Chromium	ND	-	0.79	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Molybdenum	0.18	-	0.16	mg/kg	2	F607193	13-Jul-16	6G26009	26-Jul-16	FGS-054	
Lead	ND	-	0.105	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Antimony	ND	-	0.132	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Selenium	1.70	-	1.58	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	
Thallium	ND	-	0.013	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	U
Vanadium	ND	-	0.789	mg/kg	2	F607377	13-Jul-16	6G26008	26-Jul-16	FGS-054	QB-02, U
Zinc	29.8	-	1.32	mg/kg	2	F607193	13-Jul-16	6G24002	22-Jul-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F606357 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F606357-BLK2) Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	ND	-	0.800	ng/g							U
Blank (F606357-BLK3) Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	ND	-	0.800	ng/g							U
Blank (F606357-BLK4) Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	ND	-	0.733	ng/g							FB, U
Blank (F606357-BLK5) Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	ND	-	0.656	ng/g							FB, U
Blank (F606357-BLK6) Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	ND	-	0.800	ng/g							U
LCS (F606357-BS1) Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	8.190	-	0.800	ng/g	8.0160		102	75-125			
LCS (F606357-BS2) Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	375.2	-	40.0	ng/g	382.50		98.1	75-125			
LCS Dup (F606357-BSD1) Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	8.346	-	0.800	ng/g	8.0160		104	75-125	1.89	24	
Duplicate (F606357-DUP1) Source: 1606628-72 Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	134.4	-	19.6	ng/g		169.4			23.0	24	
Duplicate (F606357-DUP2) Source: 1606628-72 Prepared: 30-Jun-16 Analyzed: 01-Jul-16											
Mercury	161.1	-	17.9	ng/g		169.4			5.02	24	AD

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F606357 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike (F606357-MS1)		Source: 1606628-72		Prepared: 30-Jun-16 Analyzed: 01-Jul-16							
Mercury	484.2	-	18.1	ng/g	361.73	169.4	87.0	71-125			
Matrix Spike (F606357-MS2)		Source: 1606628-73		Prepared: 30-Jun-16 Analyzed: 01-Jul-16							
Mercury	527.3	-	19.3	ng/g	386.87	133.2	102	71-125			
Matrix Spike Dup (F606357-MSD1)		Source: 1606628-72		Prepared: 30-Jun-16 Analyzed: 01-Jul-16							
Mercury	489.7	-	17.1	ng/g	341.98	169.4	93.7	71-125	7.32	24	
Matrix Spike Dup (F606357-MSD2)		Source: 1606628-73		Prepared: 30-Jun-16 Analyzed: 01-Jul-16							
Mercury	539.7	-	19.4	ng/g	388.37	133.2	105	71-125	2.72	24	

Batch F607089 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F607089-BLK1)				Prepared: 05-Jul-16 Analyzed: 06-Jul-16							
Mercury	ND	-	0.800	ng/g							U
Blank (F607089-BLK2)				Prepared: 05-Jul-16 Analyzed: 06-Jul-16							
Mercury	ND	-	0.800	ng/g							U
Blank (F607089-BLK3)				Prepared: 05-Jul-16 Analyzed: 06-Jul-16							
Mercury	ND	-	0.800	ng/g							U
Blank (F607089-BLK4)				Prepared: 05-Jul-16 Analyzed: 06-Jul-16							
Mercury	ND	-	0.694	ng/g							F-03, U
Blank (F607089-BLK5)				Prepared: 05-Jul-16 Analyzed: 06-Jul-16							
Mercury	ND	-	0.741	ng/g							F-03, U

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607089 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F607089-BS1)					Prepared: 05-Jul-16 Analyzed: 06-Jul-16						
Mercury	8.328	-	0.800	ng/g	8.0160		104	75-125			
LCS (F607089-BS2)					Prepared: 05-Jul-16 Analyzed: 06-Jul-16						
Mercury	347.0	-	39.7	ng/g	382.50		90.7	75-125			
LCS Dup (F607089-BSD1)					Prepared: 05-Jul-16 Analyzed: 06-Jul-16						
Mercury	8.114	-	0.800	ng/g	8.0160		101	75-125	2.61	24	
Duplicate (F607089-DUP1)					Source: 1606629-19 Prepared: 05-Jul-16 Analyzed: 06-Jul-16						
Mercury	68.27	-	39.7	ng/g		57.94			16.4	24	
Matrix Spike (F607089-MS1)					Source: 1606629-19 Prepared: 05-Jul-16 Analyzed: 06-Jul-16						
Mercury	733.9	-	37.3	ng/g	747.76	57.94	90.4	71-125			
Matrix Spike (F607089-MS2)					Source: 1606629-46 Prepared: 05-Jul-16 Analyzed: 06-Jul-16						
Mercury	910.1	-	38.5	ng/g	770.77	146.5	99.1	71-125			
Matrix Spike Dup (F607089-MSD1)					Source: 1606629-19 Prepared: 05-Jul-16 Analyzed: 06-Jul-16						
Mercury	813.2	-	38.5	ng/g	770.77	57.94	98.0	71-125	8.06	24	
Matrix Spike Dup (F607089-MSD2)					Source: 1606629-46 Prepared: 05-Jul-16 Analyzed: 06-Jul-16						
Mercury	880.3	-	37.0	ng/g	742.22	146.5	98.9	71-125	0.217	24	

Batch F607090 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F607090-BLK1)					Prepared: 05-Jul-16 Analyzed: 07-Jul-16						
Mercury	ND	-	0.800	ng/g							U

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F607090 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F607090-BLK2) Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	ND	-	0.800	ng/g							U
Blank (F607090-BLK3) Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	ND	-	0.800	ng/g							U
Blank (F607090-BLK4) Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	ND	-	0.692	ng/g							FB, U
Blank (F607090-BLK5) Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	ND	-	0.791	ng/g							FB, U
LCS (F607090-BS1) Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	8.217	-	0.800	ng/g	8.0160		103	75-125			
LCS (F607090-BS2) Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	339.4	-	39.1	ng/g	382.50		88.7	75-125			
LCS Dup (F607090-BSD1) Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	8.109	-	0.800	ng/g	8.0160		101	75-125	1.32	24	
Duplicate (F607090-DUP1) Source: 1606629-69 Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	331.2	-	7.69	ng/g		330.1			0.343	24	
Matrix Spike (F607090-MS1) Source: 1606629-69 Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	1051	-	39.4	ng/g	787.40	330.1	91.6	71-125			
Matrix Spike (F607090-MS2) Source: 1606629-71 Prepared: 05-Jul-16 Analyzed: 07-Jul-16											
Mercury	949.4	-	39.7	ng/g	793.65	211.1	93.0	71-125			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levengood	Reported: 15-Aug-16 16:44
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607090 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F607090-MSD1)		Source: 1606629-69			Prepared: 05-Jul-16 Analyzed: 07-Jul-16						
Mercury	1040	-	39.4	ng/g	787.40	330.1	90.1	71-125	1.59	24	
Matrix Spike Dup (F607090-MSD2)		Source: 1606629-71			Prepared: 05-Jul-16 Analyzed: 07-Jul-16						
Mercury	903.1	-	39.1	ng/g	781.25	211.1	88.6	71-125	4.90	24	

Batch F607190 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F607190-BLK1)		Prepared: 20-Jul-16 Analyzed: 22-Jul-16									
Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.150	mg/kg							QB-02, QM-12, U
Chromium	ND	-	0.15	mg/kg							QM-12, U
Cobalt	ND	-	0.05	mg/kg							QM-12, U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							QM-12, U
Lead	ND	-	0.020	mg/kg							QM-12, U

Blank (F607190-BLK2)		Prepared: 20-Jul-16 Analyzed: 22-Jul-16									
Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.150	mg/kg							QB-02, QM-12, U
Chromium	ND	-	0.15	mg/kg							QM-12, U
Cobalt	ND	-	0.05	mg/kg							QM-12, U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							QM-12, U
Lead	ND	-	0.020	mg/kg							QM-12, U

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607190 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS (F607190-BS1)

Prepared: 20-Jul-16 Analyzed: 22-Jul-16

Beryllium	4.097	-	0.080	mg/kg	4.0000		102	65-135			
Boron	52.43	-	2.40	mg/kg	50.0000		105	65-135			
Vanadium	7.463	-	0.150	mg/kg	5.0000		149	80-120			QB-01, QM-12
Chromium	7.13	-	0.15	mg/kg	5.0000		143	85-115			QM-12
Cobalt	5.70	-	0.05	mg/kg	4.0000		143	85-115			QM-12
Zinc	5.58	-	0.25	mg/kg	5.0000		112	75-125			
Arsenic	5.50	-	0.20	mg/kg	5.0000		110	85-115			
Selenium	4.76	-	0.30	mg/kg	5.0000		95.1	80-120			
Antimony	4.350	-	0.025	mg/kg	3.9990		109	85-115			
Thallium	4.737	-	0.002	mg/kg	4.0000		118	80-120			QM-12
Lead	5.975	-	0.020	mg/kg	5.0000		119	80-120			QM-12

LCS (F607190-BS2)

Prepared: 20-Jul-16 Analyzed: 25-Jul-16

Vanadium	5.186	-	0.150	mg/kg	5.0000		104	80-120			QB-01
Chromium	5.11	-	0.15	mg/kg	5.0000		102	85-115			
Cobalt	4.10	-	0.05	mg/kg	4.0000		103	85-115			
Molybdenum	5.22	-	0.03	mg/kg	5.0000		104	85-115			
Cadmium	4.294	-	0.010	mg/kg	4.0000		107	85-115			
Thallium	3.992	-	0.002	mg/kg	4.0000		99.8	80-120			
Lead	5.126	-	0.020	mg/kg	5.0000		103	80-120			

LCS Dup (F607190-BSD1)

Prepared: 20-Jul-16 Analyzed: 22-Jul-16

Beryllium	4.382	-	0.080	mg/kg	4.0000		110	65-135	6.72	20	
Boron	55.58	-	2.40	mg/kg	50.0000		111	65-135	5.84	20	
Vanadium	7.307	-	0.150	mg/kg	5.0000		146	80-120	2.12	20	QB-01, QM-12
Chromium	6.86	-	0.15	mg/kg	5.0000		137	85-115	3.81	20	QM-12
Cobalt	5.50	-	0.05	mg/kg	4.0000		138	85-115	3.62	20	QM-12
Zinc	5.59	-	0.25	mg/kg	5.0000		112	75-125	0.224	20	
Arsenic	5.31	-	0.20	mg/kg	5.0000		106	85-115	3.60	20	
Selenium	4.89	-	0.30	mg/kg	5.0000		97.8	80-120	2.77	20	
Antimony	4.563	-	0.025	mg/kg	3.9990		114	85-115	4.78	20	
Thallium	4.820	-	0.002	mg/kg	4.0000		121	80-120	1.75	20	QM-12
Lead	6.198	-	0.020	mg/kg	5.0000		124	80-120	3.67	20	QM-12

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607190 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS Dup (F607190-BSD2)

Prepared: 20-Jul-16 Analyzed: 25-Jul-16

Vanadium	5.226	-	0.150	mg/kg	5.0000		105	80-120	0.751	20	QB-01
Chromium	5.15	-	0.15	mg/kg	5.0000		103	85-115	0.867	20	
Cobalt	4.16	-	0.05	mg/kg	4.0000		104	85-115	1.29	20	
Molybdenum	5.34	-	0.03	mg/kg	5.0000		107	85-115	2.45	20	
Cadmium	4.376	-	0.010	mg/kg	4.0000		109	85-115	1.89	20	
Thallium	3.998	-	0.002	mg/kg	4.0000		100	80-120	0.168	20	
Lead	5.084	-	0.020	mg/kg	5.0000		102	80-120	0.820	20	

Matrix Spike (F607190-MS1)

Source: 1606629-14

Prepared: 20-Jul-16 Analyzed: 22-Jul-16

Beryllium	0.666	-	0.078	mg/kg	0.64670	ND	103	60-140			AS
Boron	53.81	-	2.33	mg/kg	51.736	ND	104	60-140			AS
Vanadium	18.48	-	0.146	mg/kg	12.934	0.080	142	75-125			AS, QB-01, QM-12
Chromium	18.22	-	0.15	mg/kg	12.934	0.05	141	75-125			AS, QM-12
Cobalt	8.89	-	0.05	mg/kg	6.4670	0.04	137	75-125			AS, QM-12
Zinc	74.25	-	0.24	mg/kg	32.335	37.37	114	65-135			AS
Arsenic	14.71	-	0.19	mg/kg	12.934	0.07	113	80-120			AS
Selenium	14.74	-	0.29	mg/kg	12.934	1.50	102	65-135			AS
Antimony	0.676	-	0.024	mg/kg	0.64670	ND	104	80-120			AS
Thallium	0.769	-	0.002	mg/kg	0.64670	0.0009	119	80-120			AS, QM-12
Lead	3.886	-	0.019	mg/kg	3.2335	0.019	120	75-125			AS, QM-12

Matrix Spike (F607190-MS2)

Source: 1606629-28

Prepared: 20-Jul-16 Analyzed: 22-Jul-16

Beryllium	0.564	-	0.064	mg/kg	0.53298	ND	106	60-140			AS
Boron	45.74	-	1.92	mg/kg	42.638	ND	107	60-140			AS
Vanadium	15.92	-	0.120	mg/kg	10.660	0.817	142	75-125			AS, QB-01, QM-12
Chromium	14.57	-	0.12	mg/kg	10.660	0.04	136	75-125			QM-12, AS
Cobalt	7.33	-	0.04	mg/kg	5.3298	0.09	136	75-125			AS, QM-12
Zinc	60.74	-	0.20	mg/kg	26.649	31.69	109	65-135			AS
Arsenic	12.14	-	0.16	mg/kg	10.660	0.13	113	80-120			AS
Selenium	13.57	-	0.24	mg/kg	10.660	2.34	105	65-135			AS
Antimony	0.582	-	0.020	mg/kg	0.53298	0.008	108	80-120			AS
Thallium	0.625	-	0.002	mg/kg	0.53298	0.003	117	80-120			AS, QM-12
Lead	3.277	-	0.016	mg/kg	2.6649	0.122	118	75-125			AS, QM-12

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607190 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F607190-MS2) Source: 1606629-28 Prepared: 20-Jul-16 Analyzed: 22-Jul-16

Matrix Spike (F607190-MS3) Source: 1606629-14RE1 Prepared: 20-Jul-16 Analyzed: 26-Jul-16

Vanadium	20.13	-	0.146	mg/kg	19.401	0.080	103	75-125			AS, QB-01
Chromium	19.80	-	0.15	mg/kg	19.401	0.05	102	75-125			AS
Cobalt	10.12	-	0.05	mg/kg	9.7004	0.04	104	75-125			AS
Molybdenum	10.66	-	0.03	mg/kg	9.7004	0.16	108	75-125			AS
Cadmium	2.175	-	0.010	mg/kg	1.9401	0.054	109	75-125			AS
Thallium	0.939	-	0.002	mg/kg	0.97004	0.0009	96.7	80-120			AS
Lead	4.755	-	0.019	mg/kg	4.8502	0.017	97.7	75-125			AS

Matrix Spike (F607190-MS4) Source: 1606629-28RE1 Prepared: 20-Jul-16 Analyzed: 26-Jul-16

Vanadium	21.77	-	0.146	mg/kg	19.401	0.569	109	75-125			AS, QB-01
Chromium	19.99	-	0.15	mg/kg	19.401	0.04	103	75-125			AS
Cobalt	10.28	-	0.05	mg/kg	9.7004	0.07	105	75-125			AS
Molybdenum	11.22	-	0.03	mg/kg	9.7004	0.52	110	75-125			AS
Cadmium	2.368	-	0.010	mg/kg	1.9401	0.156	114	75-125			AS
Thallium	0.918	-	0.002	mg/kg	0.97004	0.002	94.4	80-120			AS
Lead	4.775	-	0.019	mg/kg	4.8502	0.098	96.4	75-125			AS

Matrix Spike Dup (F607190-MSD1) Source: 1606629-14 Prepared: 20-Jul-16 Analyzed: 22-Jul-16

Beryllium	0.674	-	0.078	mg/kg	0.64670	ND	104	60-140	1.15	20	AS
Boron	54.69	-	2.33	mg/kg	51.736	ND	106	60-140	1.62	20	AS
Vanadium	19.23	-	0.146	mg/kg	12.934	0.080	148	75-125	4.00	20	QM-12, AS, QB-01
Chromium	18.11	-	0.15	mg/kg	12.934	0.05	140	75-125	0.624	20	AS, QM-12
Cobalt	8.79	-	0.05	mg/kg	6.4670	0.04	135	75-125	1.16	20	AS, QM-12
Zinc	73.72	-	0.24	mg/kg	32.335	37.37	112	65-135	1.45	20	AS
Arsenic	14.75	-	0.19	mg/kg	12.934	0.07	113	80-120	0.281	20	AS
Selenium	14.68	-	0.29	mg/kg	12.934	1.50	102	65-135	0.462	20	AS
Antimony	0.690	-	0.024	mg/kg	0.64670	ND	107	80-120	2.13	20	AS
Thallium	0.759	-	0.002	mg/kg	0.64670	0.0009	117	80-120	1.31	20	AS, QM-12
Lead	3.826	-	0.019	mg/kg	3.2335	0.019	118	75-125	1.58	20	AS, QM-12

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607190 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F607190-MSD2)

Source: 1606629-28

Prepared: 20-Jul-16 Analyzed: 22-Jul-16

Beryllium	0.538	-	0.064	mg/kg	0.53298	ND	101	60-140	4.77	20	AS
Boron	44.33	-	1.92	mg/kg	42.638	ND	104	60-140	3.13	20	AS
Vanadium	15.30	-	0.120	mg/kg	10.660	0.817	136	75-125	4.25	20	AS, QB-01, QM-12
Chromium	13.72	-	0.12	mg/kg	10.660	0.04	128	75-125	6.06	20	AS, QM-12
Cobalt	6.80	-	0.04	mg/kg	5.3298	0.09	126	75-125	7.73	20	AS, QM-12
Zinc	56.87	-	0.20	mg/kg	26.649	31.69	94.5	65-135	14.3	20	AS
Arsenic	11.53	-	0.16	mg/kg	10.660	0.13	107	80-120	5.29	20	AS
Selenium	12.64	-	0.24	mg/kg	10.660	2.34	96.6	65-135	8.65	20	AS
Antimony	0.569	-	0.020	mg/kg	0.53298	0.008	105	80-120	2.39	20	AS
Thallium	0.614	-	0.002	mg/kg	0.53298	0.003	115	80-120	1.81	20	AS, QM-12
Lead	3.191	-	0.016	mg/kg	2.6649	0.122	115	75-125	2.76	20	AS, QM-12

Matrix Spike Dup (F607190-MSD3)

Source: 1606629-14RE1

Prepared: 20-Jul-16 Analyzed: 26-Jul-16

Vanadium	20.19	-	0.146	mg/kg	19.401	0.080	104	75-125	0.329	20	AS, QB-01
Chromium	19.72	-	0.15	mg/kg	19.401	0.05	101	75-125	0.431	20	AS
Cobalt	9.86	-	0.05	mg/kg	9.7004	0.04	101	75-125	2.55	20	AS
Molybdenum	10.45	-	0.03	mg/kg	9.7004	0.16	106	75-125	2.00	20	AS
Cadmium	2.151	-	0.010	mg/kg	1.9401	0.054	108	75-125	1.10	20	AS
Thallium	0.943	-	0.002	mg/kg	0.97004	0.0009	97.2	80-120	0.490	20	AS
Lead	4.775	-	0.019	mg/kg	4.8502	0.017	98.1	75-125	0.428	20	AS

Matrix Spike Dup (F607190-MSD4)

Source: 1606629-28RE1

Prepared: 20-Jul-16 Analyzed: 26-Jul-16

Vanadium	20.79	-	0.146	mg/kg	19.401	0.569	104	75-125	4.76	20	QB-01, AS
Chromium	19.79	-	0.15	mg/kg	19.401	0.04	102	75-125	0.996	20	AS
Cobalt	10.19	-	0.05	mg/kg	9.7004	0.07	104	75-125	0.851	20	AS
Molybdenum	11.11	-	0.03	mg/kg	9.7004	0.52	109	75-125	1.04	20	AS
Cadmium	2.325	-	0.010	mg/kg	1.9401	0.156	112	75-125	1.94	20	AS
Thallium	0.957	-	0.002	mg/kg	0.97004	0.002	98.4	80-120	4.15	20	AS
Lead	4.939	-	0.019	mg/kg	4.8502	0.098	99.8	75-125	3.44	20	AS

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607191 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F607191-BLK1)

Prepared: 13-Jul-16 Analyzed: 20-Jul-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.300	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Molybdenum	ND	-	0.06	mg/kg							QB-02, U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

Blank (F607191-BLK2)

Prepared: 13-Jul-16 Analyzed: 20-Jul-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.300	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Molybdenum	ND	-	0.06	mg/kg							QB-02, U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607191 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS (F607191-BS1)		Prepared: 13-Jul-16 Analyzed: 20-Jul-16									
Beryllium	3.827	-	0.080	mg/kg	4.0000		95.7	65-135			
Boron	47.35	-	2.40	mg/kg	50.000		94.7	65-135			
Vanadium	5.139	-	0.300	mg/kg	5.0000		103	80-120			
Chromium	5.23	-	0.15	mg/kg	5.0000		105	85-115			
Cobalt	4.17	-	0.05	mg/kg	4.0000		104	85-115			
Zinc	4.93	-	0.25	mg/kg	5.0000		98.6	75-125			
Arsenic	4.66	-	0.20	mg/kg	5.0000		93.1	85-115			
Selenium	4.66	-	0.30	mg/kg	5.0000		93.2	80-120			
Molybdenum	5.19	-	0.06	mg/kg	5.0000		104	85-115			QB-01
Cadmium	3.938	-	0.010	mg/kg	4.0000		98.4	85-115			
Antimony	3.913	-	0.025	mg/kg	3.9990		97.9	85-115			
Thallium	4.042	-	0.002	mg/kg	4.0000		101	80-120			
Lead	5.082	-	0.020	mg/kg	5.0000		102	80-120			

LCS Dup (F607191-BS1)		Prepared: 13-Jul-16 Analyzed: 20-Jul-16									
Beryllium	3.750	-	0.080	mg/kg	4.0000		93.7	65-135	2.04	20	
Boron	46.77	-	2.40	mg/kg	50.000		93.5	65-135	1.23	20	
Vanadium	5.163	-	0.300	mg/kg	5.0000		103	80-120	0.470	20	
Chromium	5.32	-	0.15	mg/kg	5.0000		106	85-115	1.78	20	
Cobalt	4.10	-	0.05	mg/kg	4.0000		102	85-115	1.77	20	
Zinc	4.67	-	0.25	mg/kg	5.0000		93.3	75-125	5.53	20	
Arsenic	4.61	-	0.20	mg/kg	5.0000		92.2	85-115	1.01	20	
Selenium	4.54	-	0.30	mg/kg	5.0000		90.8	80-120	2.53	20	
Molybdenum	5.27	-	0.06	mg/kg	5.0000		105	85-115	1.63	20	QB-01
Cadmium	3.889	-	0.010	mg/kg	4.0000		97.2	85-115	1.26	20	
Antimony	3.874	-	0.025	mg/kg	3.9990		96.9	85-115	1.00	20	
Thallium	3.962	-	0.002	mg/kg	4.0000		99.1	80-120	1.99	20	
Lead	4.964	-	0.020	mg/kg	5.0000		99.3	80-120	2.36	20	

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Project Manager: Jeffery Levensgood

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607191 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F607191-MS1)	Source: 1606629-01			Prepared: 13-Jul-16 Analyzed: 20-Jul-16							
Beryllium	2.525	-	0.054	mg/kg	2.7189	ND	92.9	60-140			
Boron	32.82	-	1.63	mg/kg	33.986	0.22	95.9	60-140			
Vanadium	3.648	-	0.204	mg/kg	3.3986	0.085	105	75-125			
Chromium	3.67	-	0.10	mg/kg	3.3986	ND	108	75-125			
Cobalt	3.05	-	0.03	mg/kg	2.7189	0.10	108	75-125			
Zinc	22.29	-	0.17	mg/kg	3.3986	18.35	116	65-135			
Arsenic	3.30	-	0.14	mg/kg	3.3986	0.10	94.3	80-120			
Selenium	4.77	-	0.20	mg/kg	3.3986	1.58	94.0	65-135			
Molybdenum	3.89	-	0.04	mg/kg	3.3986	0.25	107	75-125			QB-01
Cadmium	2.725	-	0.007	mg/kg	2.7189	0.076	97.4	75-125			
Antimony	2.503	-	0.017	mg/kg	2.7182	0.006	91.9	80-120			
Thallium	2.835	-	0.002	mg/kg	2.7189	0.009	104	80-120			
Lead	3.541	-	0.014	mg/kg	3.3986	0.006	104	75-125			

Matrix Spike (F607191-MS2)	Source: 1606629-02			Prepared: 13-Jul-16 Analyzed: 20-Jul-16							
Beryllium	3.257	-	0.071	mg/kg	3.5587	ND	91.5	60-140			
Boron	36.26	-	2.14	mg/kg	44.484	0.64	80.1	60-140			
Vanadium	5.062	-	0.267	mg/kg	4.4484	0.396	105	75-125			QB-01
Chromium	4.89	-	0.13	mg/kg	4.4484	0.03	109	75-125			
Cobalt	4.03	-	0.04	mg/kg	3.5587	0.15	109	75-125			
Zinc	28.72	-	0.22	mg/kg	4.4484	24.01	106	65-135			
Arsenic	4.42	-	0.18	mg/kg	4.4484	0.16	95.7	80-120			
Selenium	6.57	-	0.27	mg/kg	4.4484	2.31	95.7	65-135			
Molybdenum	5.11	-	0.05	mg/kg	4.4484	0.43	105	75-125			QB-01
Cadmium	3.648	-	0.009	mg/kg	3.5587	0.132	98.8	75-125			
Antimony	3.284	-	0.022	mg/kg	3.5578	ND	92.3	80-120			
Thallium	3.684	-	0.002	mg/kg	3.5587	0.009	103	80-120			
Lead	4.600	-	0.018	mg/kg	4.4484	0.010	103	75-125			

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607191 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F607191-MS3)	Source: 1606629-01			Prepared: 13-Jul-16 Analyzed: 20-Jul-16							
Beryllium	0.935	-	0.076	mg/kg	0.95021	ND	98.4	60-140			AS
Boron	75.55	-	2.28	mg/kg	76.017	0.22	99.1	60-140			AS
Vanadium	21.23	-	0.285	mg/kg	19.004	0.085	111	75-125			AS
Chromium	21.43	-	0.14	mg/kg	19.004	ND	113	75-125			AS
Cobalt	10.75	-	0.05	mg/kg	9.5021	0.10	112	75-125			AS
Zinc	67.05	-	0.24	mg/kg	47.510	18.35	102	65-135			AS
Arsenic	19.28	-	0.19	mg/kg	19.004	0.10	101	80-120			AS
Selenium	19.89	-	0.29	mg/kg	19.004	1.58	96.4	65-135			AS
Molybdenum	10.80	-	0.06	mg/kg	9.5021	0.25	111	75-125			AS, QB-01
Cadmium	2.061	-	0.010	mg/kg	1.9004	0.076	104	75-125			AS
Antimony	0.919	-	0.024	mg/kg	0.95021	0.006	96.0	80-120			AS
Thallium	1.035	-	0.002	mg/kg	0.95021	0.009	108	80-120			AS
Lead	5.148	-	0.019	mg/kg	4.7510	0.006	108	75-125			AS

Matrix Spike (F607191-MS4)	Source: 1606629-02			Prepared: 13-Jul-16 Analyzed: 20-Jul-16							
Beryllium	0.929	-	0.078	mg/kg	0.98039	ND	94.7	60-140			AS
Boron	77.43	-	2.35	mg/kg	78.431	0.64	97.9	60-140			AS
Vanadium	22.72	-	0.294	mg/kg	19.608	0.396	114	75-125			AS, QB-01
Chromium	22.85	-	0.15	mg/kg	19.608	0.03	116	75-125			AS
Cobalt	11.51	-	0.05	mg/kg	9.8039	0.15	116	75-125			AS
Zinc	73.36	-	0.25	mg/kg	49.020	24.01	101	65-135			AS
Arsenic	20.10	-	0.20	mg/kg	19.608	0.16	102	80-120			AS
Selenium	20.68	-	0.29	mg/kg	19.608	2.31	93.7	65-135			AS
Molybdenum	11.72	-	0.06	mg/kg	9.8039	0.43	115	75-125			AS, QB-01
Cadmium	2.153	-	0.010	mg/kg	1.9608	0.132	103	75-125			AS
Antimony	0.935	-	0.025	mg/kg	0.98039	ND	95.4	80-120			AS
Thallium	1.099	-	0.002	mg/kg	0.98039	0.009	111	80-120			AS
Lead	5.458	-	0.020	mg/kg	4.9020	0.010	111	75-125			AS

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Patrick Garcia-Strickland, Laboratory Director

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607191 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F607191-MSD1)	Source: 1606629-01			Prepared: 13-Jul-16 Analyzed: 20-Jul-16							
Beryllium	3.216	-	0.073	mg/kg	3.6271	ND	88.7	60-140	4.63	20	
Boron	42.52	-	2.18	mg/kg	45.339	0.22	93.3	60-140	2.77	20	
Vanadium	4.922	-	0.272	mg/kg	4.5339	0.085	107	75-125	1.76	20	
Chromium	4.78	-	0.14	mg/kg	4.5339	ND	105	75-125	2.40	20	
Cobalt	3.95	-	0.05	mg/kg	3.6271	0.10	106	75-125	2.20	20	
Zinc	23.71	-	0.23	mg/kg	4.5339	18.35	118	65-135	1.91	20	
Arsenic	4.23	-	0.18	mg/kg	4.5339	0.10	91.3	80-120	3.26	20	
Selenium	5.70	-	0.27	mg/kg	4.5339	1.58	91.0	65-135	3.24	20	
Molybdenum	4.94	-	0.05	mg/kg	4.5339	0.25	103	75-125	3.44	20	QB-01
Cadmium	3.516	-	0.009	mg/kg	3.6271	0.076	94.8	75-125	2.69	20	
Antimony	3.195	-	0.023	mg/kg	3.6262	0.006	87.9	80-120	4.37	20	
Thallium	3.617	-	0.002	mg/kg	3.6271	0.009	99.5	80-120	4.39	20	
Lead	4.523	-	0.018	mg/kg	4.5339	0.006	99.6	75-125	4.29	20	

Matrix Spike Dup (F607191-MSD2)	Source: 1606629-02			Prepared: 13-Jul-16 Analyzed: 20-Jul-16							
Beryllium	2.844	-	0.065	mg/kg	3.2321	ND	88.0	60-140	3.95	20	
Boron	36.57	-	1.94	mg/kg	40.401	0.64	88.9	60-140	10.5	20	
Vanadium	4.542	-	0.242	mg/kg	4.0401	0.396	103	75-125	2.17	20	QB-01
Chromium	4.42	-	0.12	mg/kg	4.0401	0.03	109	75-125	0.607	20	
Cobalt	3.59	-	0.04	mg/kg	3.2321	0.15	107	75-125	2.21	20	
Zinc	29.89	-	0.20	mg/kg	4.0401	24.01	146	65-135	31.7	20	QM-14, QR-08
Arsenic	3.93	-	0.16	mg/kg	4.0401	0.16	93.2	80-120	2.72	20	
Selenium	6.18	-	0.24	mg/kg	4.0401	2.31	95.6	65-135	0.0978	20	
Molybdenum	4.68	-	0.05	mg/kg	4.0401	0.43	105	75-125	0.0517	20	QB-01
Cadmium	3.190	-	0.008	mg/kg	3.2321	0.132	94.6	75-125	4.34	20	
Antimony	2.884	-	0.020	mg/kg	3.2313	ND	89.3	80-120	3.35	20	
Thallium	3.272	-	0.002	mg/kg	3.2321	0.009	101	80-120	2.27	20	
Lead	4.077	-	0.016	mg/kg	4.0401	0.010	101	75-125	2.47	20	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607191 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F607191-MSD3)	Source: 1606629-01			Prepared: 13-Jul-16 Analyzed: 20-Jul-16							
Beryllium	0.945	-	0.076	mg/kg	0.95021	ND	99.4	60-140	1.05	20	AS
Boron	77.26	-	2.28	mg/kg	76.017	0.22	101	60-140	2.24	20	AS
Vanadium	21.68	-	0.285	mg/kg	19.004	0.085	114	75-125	2.11	20	AS
Chromium	21.84	-	0.14	mg/kg	19.004	ND	115	75-125	1.90	20	AS
Cobalt	11.00	-	0.05	mg/kg	9.5021	0.10	115	75-125	2.33	20	AS
Zinc	68.54	-	0.24	mg/kg	47.510	18.35	106	65-135	3.02	20	AS
Arsenic	19.68	-	0.19	mg/kg	19.004	0.10	103	80-120	2.07	20	AS
Selenium	20.11	-	0.29	mg/kg	19.004	1.58	97.5	65-135	1.19	20	AS
Molybdenum	11.19	-	0.06	mg/kg	9.5021	0.25	115	75-125	3.60	20	AS, QB-01
Cadmium	2.080	-	0.010	mg/kg	1.9004	0.076	105	75-125	0.939	20	AS
Antimony	0.923	-	0.024	mg/kg	0.95021	0.006	96.6	80-120	0.541	20	AS
Thallium	1.050	-	0.002	mg/kg	0.95021	0.009	110	80-120	1.43	20	AS
Lead	5.273	-	0.019	mg/kg	4.7510	0.006	111	75-125	2.41	20	AS

Matrix Spike Dup (F607191-MSD4)	Source: 1606629-02			Prepared: 13-Jul-16 Analyzed: 20-Jul-16							
Beryllium	0.960	-	0.078	mg/kg	0.98039	ND	97.9	60-140	3.26	20	AS
Boron	81.37	-	2.35	mg/kg	78.431	0.64	103	60-140	5.01	20	AS
Vanadium	22.92	-	0.294	mg/kg	19.608	0.396	115	75-125	0.869	20	AS, QB-01
Chromium	23.45	-	0.15	mg/kg	19.608	0.03	119	75-125	2.62	20	AS
Cobalt	11.47	-	0.05	mg/kg	9.8039	0.15	115	75-125	0.366	20	AS
Zinc	74.95	-	0.25	mg/kg	49.020	24.01	104	65-135	3.16	20	AS
Arsenic	20.01	-	0.20	mg/kg	19.608	0.16	101	80-120	0.474	20	AS
Selenium	21.15	-	0.29	mg/kg	19.608	2.31	96.1	65-135	2.53	20	AS
Molybdenum	11.77	-	0.06	mg/kg	9.8039	0.43	116	75-125	0.413	20	QB-01, AS
Cadmium	2.144	-	0.010	mg/kg	1.9608	0.132	103	75-125	0.435	20	AS
Antimony	0.939	-	0.025	mg/kg	0.98039	ND	95.8	80-120	0.422	20	AS
Thallium	1.094	-	0.002	mg/kg	0.98039	0.009	111	80-120	0.455	20	AS
Lead	5.490	-	0.020	mg/kg	4.9020	0.010	112	75-125	0.578	20	AS

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607192 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F607192-BLK1)

Prepared: 13-Jul-16 Analyzed: 21-Jul-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Molybdenum	ND	-	0.06	mg/kg							QB-02, U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

Blank (F607192-BLK2)

Prepared: 13-Jul-16 Analyzed: 21-Jul-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Molybdenum	ND	-	0.06	mg/kg							QB-02, U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

LCS (F607192-BS1)

Prepared: 13-Jul-16 Analyzed: 21-Jul-16

Beryllium	2.941	-	0.080	mg/kg	4.0000		73.5	65-135			
Boron	41.51	-	2.40	mg/kg	50.000		83.0	65-135			
Chromium	4.29	-	0.15	mg/kg	5.0000		85.7	85-115			
Cobalt	3.40	-	0.05	mg/kg	4.0000		85.1	85-115			
Zinc	3.76	-	0.25	mg/kg	5.0000		75.2	75-125			
Molybdenum	4.26	-	0.06	mg/kg	5.0000		85.3	85-115			QB-01
Thallium	3.258	-	0.002	mg/kg	4.0000		81.4	80-120			
Lead	4.081	-	0.020	mg/kg	5.0000		81.6	80-120			

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University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607192 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS Dup (F607192-BSD1)

Prepared: 13-Jul-16 Analyzed: 21-Jul-16

Beryllium	3.331	-	0.080	mg/kg	4.0000		83.3	65-135	12.4	20	
Boron	43.18	-	2.40	mg/kg	50.0000		86.4	65-135	3.93	20	
Chromium	5.01	-	0.15	mg/kg	5.0000		100	85-115	15.6	20	
Cobalt	3.98	-	0.05	mg/kg	4.0000		99.5	85-115	15.6	20	
Zinc	4.38	-	0.25	mg/kg	5.0000		87.6	75-125	15.3	20	
Molybdenum	4.98	-	0.06	mg/kg	5.0000		99.6	85-115	15.5	20	QB-01
Thallium	3.807	-	0.002	mg/kg	4.0000		95.2	80-120	15.5	20	
Lead	4.765	-	0.020	mg/kg	5.0000		95.3	80-120	15.5	20	

Matrix Spike (F607192-MS1)

Source: 1606629-32

Prepared: 13-Jul-16 Analyzed: 21-Jul-16

Beryllium	3.409	-	0.075	mg/kg	3.7550	ND	90.8	60-140			
Boron	44.26	-	2.25	mg/kg	46.938	ND	94.3	60-140			
Chromium	5.13	-	0.14	mg/kg	4.6938	ND	109	75-125			
Cobalt	4.25	-	0.05	mg/kg	3.7550	0.16	109	75-125			
Zinc	32.05	-	0.23	mg/kg	4.6938	27.51	96.7	65-135			
Molybdenum	5.30	-	0.06	mg/kg	4.6938	0.26	107	75-125			QB-01
Thallium	4.005	-	0.002	mg/kg	3.7550	0.072	105	80-120			
Lead	4.932	-	0.019	mg/kg	4.6938	0.015	105	75-125			

Matrix Spike (F607192-MS2)

Source: 1606629-27

Prepared: 13-Jul-16 Analyzed: 21-Jul-16

Beryllium	3.428	-	0.073	mg/kg	3.6290	ND	94.5	60-140			
Boron	43.98	-	2.18	mg/kg	45.362	0.53	95.8	60-140			
Chromium	4.84	-	0.14	mg/kg	4.5362	0.04	106	75-125			
Cobalt	4.09	-	0.05	mg/kg	3.6290	0.09	110	75-125			
Zinc	26.49	-	0.23	mg/kg	4.5362	22.24	93.6	65-135			
Molybdenum	5.35	-	0.05	mg/kg	4.5362	0.53	106	75-125			QB-01
Thallium	3.826	-	0.002	mg/kg	3.6290	0.002	105	80-120			
Lead	5.106	-	0.018	mg/kg	4.5362	0.294	106	75-125			

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University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607192 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F607192-MS3)		Source: 1606629-32			Prepared: 13-Jul-16 Analyzed: 21-Jul-16						
Beryllium	0.891	-	0.076	mg/kg	0.95082	ND	93.7	60-140			AS
Boron	71.53	-	2.28	mg/kg	76.066	ND	94.0	60-140			AS
Chromium	21.29	-	0.14	mg/kg	19.016	ND	112	75-125			AS
Cobalt	10.73	-	0.05	mg/kg	9.5082	0.16	111	75-125			AS
Zinc	74.74	-	0.24	mg/kg	47.541	27.51	99.3	65-135			AS
Molybdenum	10.82	-	0.06	mg/kg	9.5082	0.26	111	75-125			AS, QB-01
Thallium	1.091	-	0.002	mg/kg	0.95082	0.072	107	80-120			AS
Lead	5.127	-	0.019	mg/kg	4.7541	0.015	108	75-125			AS

Matrix Spike (F607192-MS4)		Source: 1606629-27			Prepared: 13-Jul-16 Analyzed: 21-Jul-16						
Beryllium	0.937	-	0.078	mg/kg	0.97576	ND	96.1	60-140			AS
Boron	73.68	-	2.34	mg/kg	78.061	0.53	93.7	60-140			AS
Chromium	21.90	-	0.15	mg/kg	19.515	0.04	112	75-125			AS
Zinc	70.73	-	0.24	mg/kg	48.788	22.24	99.4	65-135			AS
Molybdenum	11.16	-	0.06	mg/kg	9.7576	0.53	109	75-125			AS, QB-01
Thallium	1.050	-	0.002	mg/kg	0.97576	0.002	107	80-120			AS
Lead	5.555	-	0.020	mg/kg	4.8788	0.294	108	75-125			AS

Matrix Spike Dup (F607192-MSD1)		Source: 1606629-32			Prepared: 13-Jul-16 Analyzed: 21-Jul-16						
Beryllium	2.992	-	0.071	mg/kg	3.5391	ND	84.5	60-140	7.14	20	
Boron	37.58	-	2.12	mg/kg	44.238	ND	84.9	60-140	10.4	20	
Chromium	4.33	-	0.13	mg/kg	4.4238	ND	97.9	75-125	11.0	20	
Cobalt	3.60	-	0.04	mg/kg	3.5391	0.16	97.1	75-125	11.3	20	
Zinc	28.58	-	0.22	mg/kg	4.4238	27.51	24.1	65-135	120	20	QM-14, QR-08
Molybdenum	4.49	-	0.05	mg/kg	4.4238	0.26	95.5	75-125	11.6	20	QB-01
Thallium	3.385	-	0.002	mg/kg	3.5391	0.072	93.6	80-120	11.2	20	
Lead	4.207	-	0.018	mg/kg	4.4238	0.015	94.7	75-125	10.0	20	

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607192 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F607192-MSD2)		Source: 1606629-27			Prepared: 13-Jul-16 Analyzed: 21-Jul-16						
Beryllium	2.465	-	0.055	mg/kg	2.7600	ND	89.3	60-140	5.61	20	
Boron	31.76	-	1.66	mg/kg	34.500	0.53	90.5	60-140	5.67	20	
Chromium	3.62	-	0.10	mg/kg	3.4500	0.04	104	75-125	1.75	20	
Cobalt	2.95	-	0.03	mg/kg	2.7600	0.09	104	75-125	6.18	20	
Zinc	23.49	-	0.17	mg/kg	3.4500	22.24	36.1	65-135	88.7	20	QM-14, QR-08
Molybdenum	3.99	-	0.04	mg/kg	3.4500	0.53	100	75-125	5.71	20	QB-01
Thallium	2.732	-	0.002	mg/kg	2.7600	0.002	98.9	80-120	6.32	20	
Lead	3.680	-	0.014	mg/kg	3.4500	0.294	98.1	75-125	7.76	20	

Matrix Spike Dup (F607192-MSD3)		Source: 1606629-32			Prepared: 13-Jul-16 Analyzed: 21-Jul-16						
Beryllium	0.903	-	0.076	mg/kg	0.95082	ND	95.0	60-140	1.33	20	AS
Boron	72.88	-	2.28	mg/kg	76.066	ND	95.8	60-140	1.86	20	AS
Chromium	21.19	-	0.14	mg/kg	19.016	ND	111	75-125	0.479	20	AS
Cobalt	10.80	-	0.05	mg/kg	9.5082	0.16	112	75-125	0.629	20	AS
Zinc	73.06	-	0.24	mg/kg	47.541	27.51	95.8	65-135	3.62	20	AS
Molybdenum	10.76	-	0.06	mg/kg	9.5082	0.26	110	75-125	0.565	20	AS, QB-01
Thallium	1.088	-	0.002	mg/kg	0.95082	0.072	107	80-120	0.322	20	AS
Lead	5.102	-	0.019	mg/kg	4.7541	0.015	107	75-125	0.489	20	AS

Matrix Spike Dup (F607192-MSD4)		Source: 1606629-27			Prepared: 13-Jul-16 Analyzed: 21-Jul-16						
Beryllium	0.935	-	0.078	mg/kg	0.97576	ND	95.8	60-140	0.234	20	AS
Boron	74.24	-	2.34	mg/kg	78.061	0.53	94.4	60-140	0.769	20	AS
Chromium	21.85	-	0.15	mg/kg	19.515	0.04	112	75-125	0.236	20	AS
Zinc	70.25	-	0.24	mg/kg	48.788	22.24	98.4	65-135	1.00	20	AS
Molybdenum	11.31	-	0.06	mg/kg	9.7576	0.53	110	75-125	1.36	20	AS, QB-01
Thallium	1.037	-	0.002	mg/kg	0.97576	0.002	106	80-120	1.22	20	AS
Lead	5.508	-	0.020	mg/kg	4.8788	0.294	107	75-125	0.896	20	AS

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607193 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F607193-BLK1)

Prepared: 13-Jul-16 Analyzed: 22-Jul-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Chromium	ND	-	0.15	mg/kg							QB-02, U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Molybdenum	ND	-	0.06	mg/kg							QB-02, U
Cadmium	ND	-	0.010	mg/kg							QB-02, U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

Blank (F607193-BLK2)

Prepared: 13-Jul-16 Analyzed: 22-Jul-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Chromium	ND	-	0.15	mg/kg							QB-02, U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Molybdenum	ND	-	0.06	mg/kg							QB-02, U
Cadmium	ND	-	0.010	mg/kg							QB-02, U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

LCS (F607193-BS1)

Prepared: 13-Jul-16 Analyzed: 22-Jul-16

Beryllium	3.524	-	0.080	mg/kg	4.0000		88.1	65-135			
Boron	44.51	-	2.40	mg/kg	50.000		89.0	65-135			
Chromium	5.08	-	0.15	mg/kg	5.0000		102	85-115			QB-01
Cobalt	4.17	-	0.05	mg/kg	4.0000		104	85-115			
Zinc	4.27	-	0.25	mg/kg	5.0000		85.5	75-125			
Molybdenum	5.04	-	0.06	mg/kg	5.0000		101	85-115			QB-01
Cadmium	3.617	-	0.010	mg/kg	4.0000		90.4	85-115			QB-01
Antimony	3.522	-	0.025	mg/kg	3.9990		88.1	85-115			
Thallium	3.862	-	0.002	mg/kg	4.0000		96.5	80-120			
Lead	4.880	-	0.020	mg/kg	5.0000		97.6	80-120			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607193 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS Dup (F607193-BSD1)

Prepared: 13-Jul-16 Analyzed: 22-Jul-16

Beryllium	3.762	-	0.080	mg/kg	4.0000		94.1	65-135	6.56	20	
Boron	48.49	-	2.40	mg/kg	50.000		97.0	65-135	8.54	20	
Chromium	5.19	-	0.15	mg/kg	5.0000		104	85-115	2.14	20	QB-01
Cobalt	4.21	-	0.05	mg/kg	4.0000		105	85-115	0.869	20	
Zinc	4.31	-	0.25	mg/kg	5.0000		86.2	75-125	0.865	20	
Molybdenum	5.22	-	0.06	mg/kg	5.0000		104	85-115	3.55	20	QB-01
Cadmium	3.922	-	0.010	mg/kg	4.0000		98.1	85-115	8.10	20	QB-01
Antimony	3.729	-	0.025	mg/kg	3.9990		93.3	85-115	5.71	20	
Thallium	3.982	-	0.002	mg/kg	4.0000		99.5	80-120	3.06	20	
Lead	4.997	-	0.020	mg/kg	5.0000		99.9	80-120	2.37	20	

Matrix Spike (F607193-MS1)

Source: 1606629-58

Prepared: 13-Jul-16 Analyzed: 22-Jul-16

Beryllium	3.418	-	0.069	mg/kg	3.4284	ND	99.7	60-140			
Boron	42.93	-	2.06	mg/kg	42.855	0.16	99.8	60-140			
Chromium	4.74	-	0.13	mg/kg	4.2855	ND	111	75-125			QB-01
Cobalt	4.28	-	0.04	mg/kg	3.4284	0.46	111	75-125			
Zinc	30.29	-	0.21	mg/kg	4.2855	25.72	106	65-135			
Molybdenum	4.94	-	0.05	mg/kg	4.2855	0.24	110	75-125			QB-01
Cadmium	3.631	-	0.009	mg/kg	3.4284	0.155	101	75-125			QB-01
Antimony	3.296	-	0.021	mg/kg	3.4276	ND	96.2	80-120			
Thallium	3.617	-	0.002	mg/kg	3.4284	0.007	105	80-120			
Lead	4.475	-	0.017	mg/kg	4.2855	0.002	104	75-125			

Matrix Spike (F607193-MS2)

Source: 1606629-69

Prepared: 13-Jul-16 Analyzed: 22-Jul-16

Beryllium	8.054	-	0.152	mg/kg	7.5971	ND	106	60-140			
Boron	95.88	-	4.56	mg/kg	94.963	0.27	101	60-140			
Chromium	10.22	-	0.28	mg/kg	9.4963	0.08	107	75-125			
Cobalt	9.13	-	0.09	mg/kg	7.5971	1.06	106	75-125			
Zinc	38.59	-	0.47	mg/kg	9.4963	26.16	131	65-135			
Molybdenum	10.03	-	0.11	mg/kg	9.4963	0.28	103	75-125			QB-01
Cadmium	8.859	-	0.019	mg/kg	7.5971	0.585	109	75-125			
Antimony	7.617	-	0.047	mg/kg	7.5952	ND	100	80-120			
Thallium	7.583	-	0.005	mg/kg	7.5971	0.007	99.7	80-120			
Lead	9.610	-	0.038	mg/kg	9.4963	0.043	101	75-125			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607193 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F607193-MS3)		Source: 1606629-58			Prepared: 13-Jul-16 Analyzed: 22-Jul-16						
Beryllium	0.783	-	0.060	mg/kg	0.75342	ND	104	60-140			AS
Boron	61.35	-	1.81	mg/kg	60.274	0.16	102	60-140			AS
Chromium	17.26	-	0.11	mg/kg	15.068	ND	115	75-125			AS, QB-01
Cobalt	9.15	-	0.04	mg/kg	7.5342	0.46	115	75-125			AS
Zinc	63.11	-	0.19	mg/kg	37.671	25.72	99.2	65-135			AS
Molybdenum	8.78	-	0.05	mg/kg	7.5342	0.24	113	75-125			AS, QB-01
Cadmium	1.727	-	0.008	mg/kg	1.5068	0.155	104	75-125			AS, QB-01
Antimony	0.763	-	0.019	mg/kg	0.75342	ND	101	80-120			AS
Thallium	0.835	-	0.002	mg/kg	0.75342	0.007	110	80-120			AS
Lead	4.147	-	0.015	mg/kg	3.7671	0.002	110	75-125			AS

Matrix Spike (F607193-MS4)		Source: 1606629-69			Prepared: 13-Jul-16 Analyzed: 22-Jul-16						
Beryllium	2.165	-	0.154	mg/kg	1.9200	ND	113	60-140			AS
Boron	167.5	-	4.61	mg/kg	153.60	0.27	109	60-140			AS
Chromium	44.20	-	0.29	mg/kg	38.400	0.08	115	75-125			AS
Cobalt	23.06	-	0.10	mg/kg	19.200	1.06	115	75-125			AS
Zinc	134.6	-	0.48	mg/kg	95.999	26.16	113	65-135			AS
Molybdenum	21.78	-	0.12	mg/kg	19.200	0.28	112	75-125			AS, QB-01
Cadmium	5.012	-	0.019	mg/kg	3.8400	0.585	115	75-125			AS
Antimony	2.115	-	0.048	mg/kg	1.9200	ND	110	80-120			AS
Thallium	2.034	-	0.005	mg/kg	1.9200	0.007	106	80-120			AS
Lead	10.26	-	0.038	mg/kg	9.5999	0.043	106	75-125			AS

Matrix Spike Dup (F607193-MSD1)		Source: 1606629-58			Prepared: 13-Jul-16 Analyzed: 22-Jul-16						
Beryllium	3.699	-	0.079	mg/kg	3.9328	ND	94.1	60-140	5.83	20	
Boron	48.04	-	2.36	mg/kg	49.160	0.16	97.4	60-140	2.44	20	
Chromium	5.23	-	0.15	mg/kg	4.9160	ND	106	75-125	3.84	20	QB-01
Cobalt	4.69	-	0.05	mg/kg	3.9328	0.46	108	75-125	3.57	20	
Zinc	29.78	-	0.25	mg/kg	4.9160	25.72	82.5	65-135	25.4	20	QR-08
Molybdenum	5.41	-	0.06	mg/kg	4.9160	0.24	105	75-125	4.20	20	QB-01
Cadmium	4.037	-	0.010	mg/kg	3.9328	0.155	98.7	75-125	2.69	20	QB-01
Antimony	3.678	-	0.025	mg/kg	3.9318	ND	93.5	80-120	2.75	20	
Thallium	3.961	-	0.002	mg/kg	3.9328	0.007	101	80-120	4.61	20	
Lead	4.979	-	0.020	mg/kg	4.9160	0.002	101	75-125	3.06	20	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607193 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F607193-MSD2)		Source: 1606629-69			Prepared: 13-Jul-16 Analyzed: 22-Jul-16						
Beryllium	7.604	-	0.158	mg/kg	7.8864	ND	96.4	60-140	9.48	20	
Boron	94.88	-	4.73	mg/kg	98.580	0.27	96.0	60-140	4.79	20	
Chromium	9.55	-	0.30	mg/kg	9.8580	0.08	96.1	75-125	10.6	20	
Cobalt	8.39	-	0.10	mg/kg	7.8864	1.06	93.0	75-125	13.2	20	
Zinc	35.52	-	0.49	mg/kg	9.8580	26.16	95.0	65-135	31.8	20	QR-08
Molybdenum	9.42	-	0.12	mg/kg	9.8580	0.28	92.8	75-125	10.2	20	QB-01
Cadmium	7.954	-	0.020	mg/kg	7.8864	0.585	93.4	75-125	15.3	20	
Antimony	7.091	-	0.049	mg/kg	7.8845	ND	89.9	80-120	10.9	20	
Thallium	7.067	-	0.005	mg/kg	7.8864	0.007	89.5	80-120	10.8	20	
Lead	8.968	-	0.039	mg/kg	9.8580	0.043	90.5	75-125	10.7	20	

Matrix Spike Dup (F607193-MSD3)		Source: 1606629-58			Prepared: 13-Jul-16 Analyzed: 22-Jul-16						
Beryllium	0.791	-	0.060	mg/kg	0.75342	ND	105	60-140	0.982	20	AS
Boron	61.80	-	1.81	mg/kg	60.274	0.16	102	60-140	0.723	20	AS
Chromium	17.05	-	0.11	mg/kg	15.068	ND	113	75-125	1.21	20	AS
Cobalt	9.12	-	0.04	mg/kg	7.5342	0.46	115	75-125	0.316	20	AS
Zinc	62.87	-	0.19	mg/kg	37.671	25.72	98.6	65-135	0.654	20	AS
Molybdenum	8.70	-	0.05	mg/kg	7.5342	0.24	112	75-125	0.930	20	AS, QB-01
Cadmium	1.718	-	0.008	mg/kg	1.5068	0.155	104	75-125	0.555	20	AS
Antimony	0.750	-	0.019	mg/kg	0.75342	ND	99.5	80-120	1.80	20	AS
Thallium	0.832	-	0.002	mg/kg	0.75342	0.007	110	80-120	0.335	20	AS
Lead	4.114	-	0.015	mg/kg	3.7671	0.002	109	75-125	0.788	20	AS

Matrix Spike Dup (F607193-MSD4)		Source: 1606629-69			Prepared: 13-Jul-16 Analyzed: 22-Jul-16						
Beryllium	2.183	-	0.154	mg/kg	1.9200	ND	114	60-140	0.819	20	AS
Boron	168.4	-	4.61	mg/kg	153.60	0.27	109	60-140	0.537	20	AS
Chromium	43.55	-	0.29	mg/kg	38.400	0.08	113	75-125	1.49	20	AS
Cobalt	22.67	-	0.10	mg/kg	19.200	1.06	113	75-125	1.82	20	AS
Zinc	135.2	-	0.48	mg/kg	95.999	26.16	114	65-135	0.622	20	AS
Molybdenum	21.98	-	0.12	mg/kg	19.200	0.28	113	75-125	0.952	20	AS, QB-01
Cadmium	4.912	-	0.019	mg/kg	3.8400	0.585	113	75-125	2.28	20	AS
Antimony	2.039	-	0.048	mg/kg	1.9200	ND	106	80-120	3.64	20	AS
Thallium	2.024	-	0.005	mg/kg	1.9200	0.007	105	80-120	0.472	20	AS
Lead	10.23	-	0.038	mg/kg	9.5999	0.043	106	75-125	0.298	20	AS

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1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F607331 - EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Blank (F607331-BLK1)					Prepared: 20-Jul-16 Analyzed: 22-Jul-16						
Mercury	ND	-	3.0	ng/g							U
Blank (F607331-BLK2)					Prepared: 20-Jul-16 Analyzed: 22-Jul-16						
Mercury	ND	-	3.0	ng/g							U
Blank (F607331-BLK3)					Prepared: 20-Jul-16 Analyzed: 26-Jul-16						
Mercury	ND	-	3.0	ng/g							U
Blank (F607331-BLK4)					Prepared: 20-Jul-16 Analyzed: 26-Jul-16						
Mercury	ND	-	3.0	ng/g							U
LCS (F607331-BS2)					Prepared: 20-Jul-16 Analyzed: 26-Jul-16						
Mercury	265.3	-	75.0	ng/g	300.00		88.4	75-125			
LCS Dup (F607331-BSD2)					Prepared: 20-Jul-16 Analyzed: 26-Jul-16						
Mercury	268.3	-	75.0	ng/g	300.00		89.4	75-125	1.10	24	
Duplicate (F607331-DUP1)					Source: 1606629-28 Prepared: 20-Jul-16 Analyzed: 22-Jul-16						
Mercury	61.4	-	12.0	ng/g		59.7			2.77	24	AD
Matrix Spike (F607331-MS1)					Source: 1606629-28 Prepared: 20-Jul-16 Analyzed: 22-Jul-16						
Mercury	226.6	-	12.0	ng/g	160.21	59.7	104	71-125			AS
Matrix Spike (F607331-MS2)					Source: 1606629-29 Prepared: 20-Jul-16 Analyzed: 22-Jul-16						
Mercury	258.5	-	14.6	ng/g	195.22	55.3	104	71-125			AS
Matrix Spike Dup (F607331-MSD1)					Source: 1606629-28 Prepared: 20-Jul-16 Analyzed: 22-Jul-16						
Mercury	219.6	-	12.0	ng/g	160.21	59.7	99.8	71-125	4.31	24	AS

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607331 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F607331-MSD2)		Source: 1606629-29		Prepared: 20-Jul-16 Analyzed: 22-Jul-16	
Mercury	265.1	-	14.6	ng/g	195.22 55.3 107 71-125 3.20 24 AS

Batch F607377 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F607377-BLK1)				Prepared: 13-Jul-16 Analyzed: 26-Jul-16	
Vanadium	ND	-	0.150	mg/kg	QB-02, U
Arsenic	ND	-	0.20	mg/kg	U
Selenium	ND	-	0.30	mg/kg	U

Blank (F607377-BLK2)				Prepared: 13-Jul-16 Analyzed: 26-Jul-16	
Vanadium	ND	-	0.150	mg/kg	QB-02, U
Arsenic	ND	-	0.20	mg/kg	U
Selenium	ND	-	0.30	mg/kg	U

LCS (F607377-BS1)				Prepared: 13-Jul-16 Analyzed: 25-Jul-16	
Vanadium	4.944	-	0.150	mg/kg	5.0000 98.9 80-120 QB-01
Arsenic	5.13	-	0.20	mg/kg	5.0000 103 85-115
Selenium	5.51	-	0.30	mg/kg	5.0000 110 80-120

LCS Dup (F607377-BSD1)				Prepared: 13-Jul-16 Analyzed: 25-Jul-16	
Vanadium	5.170	-	0.150	mg/kg	5.0000 103 80-120 4.45 20 QB-01
Arsenic	5.19	-	0.20	mg/kg	5.0000 104 85-115 1.15 20
Selenium	5.60	-	0.30	mg/kg	5.0000 112 80-120 1.55 20

Matrix Spike (F607377-MS1)		Source: 1606629-58RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16	
Arsenic	5.10	-	0.17	mg/kg	4.2855 0.29 112 80-120
Selenium	6.33	-	0.26	mg/kg	4.2855 1.45 114 65-135

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44


Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607377 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F607377-MS2)		Source: 1606629-69RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	9.789	-	0.114	mg/kg	9.4963	0.372	99.2	75-125			QB-01
Arsenic	10.93	-	0.15	mg/kg	9.4963	0.29	112	80-120			
Selenium	12.39	-	0.23	mg/kg	9.4963	1.55	114	65-135			
Matrix Spike (F607377-MS3)		Source: 1606629-58RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	15.13	-	0.113	mg/kg	15.068	0.023	100	75-125			AS, QB-01
Arsenic	17.26	-	0.15	mg/kg	15.068	0.29	113	80-120			AS
Selenium	18.94	-	0.23	mg/kg	15.068	1.45	116	65-135			AS
Matrix Spike (F607377-MS4)		Source: 1606629-69RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	22.55	-	0.115	mg/kg	21.943	0.372	101	75-125			AS, QB-01
Arsenic	24.97	-	0.15	mg/kg	21.943	0.29	112	80-120			AS
Selenium	27.38	-	0.23	mg/kg	21.943	1.55	118	65-135			AS
Matrix Spike (F607377-MS5)		Source: 1606629-58RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	4.750	-	0.257	mg/kg	4.2855	0.023	110	75-125			
Matrix Spike Dup (F607377-MSD1)		Source: 1606629-58RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Arsenic	5.77	-	0.20	mg/kg	4.9160	0.29	111	80-120	0.730	20	
Selenium	7.25	-	0.29	mg/kg	4.9160	1.45	118	65-135	3.51	20	
Matrix Spike Dup (F607377-MSD2)		Source: 1606629-69RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	8.906	-	0.118	mg/kg	9.8580	0.372	86.6	75-125	13.6	20	QB-01
Arsenic	10.05	-	0.16	mg/kg	9.8580	0.29	99.0	80-120	12.4	20	
Selenium	11.78	-	0.24	mg/kg	9.8580	1.55	104	65-135	9.54	20	
Matrix Spike Dup (F607377-MSD3)		Source: 1606629-58RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	15.65	-	0.113	mg/kg	15.068	0.023	104	75-125	3.34	20	AS, QB-01
Arsenic	17.50	-	0.15	mg/kg	15.068	0.29	114	80-120	1.41	20	AS
Selenium	19.29	-	0.23	mg/kg	15.068	1.45	118	65-135	1.96	20	AS

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Fish (Livers) Project Manager: Jeffery Levensgood	Reported: 15-Aug-16 16:44
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607377 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F607377-MSD4)		Source: 1606629-69RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	23.06	-	0.115	mg/kg	21.943	0.372	103	75-125	2.25	20	AS, QB-01
Arsenic	25.33	-	0.15	mg/kg	21.943	0.29	114	80-120	1.45	20	AS
Selenium	27.16	-	0.23	mg/kg	21.943	1.55	117	65-135	0.859	20	AS

Matrix Spike Dup (F607377-MSD5)		Source: 1606629-58RE1		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	5.142	-	0.295	mg/kg	4.9160	0.023	104	75-125	5.76	20	

Batch F607378 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F607378-BLK1)		Prepared: 20-Jul-16 Analyzed: 26-Jul-16									
Molybdenum	ND	-	0.03	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U

Blank (F607378-BLK2)		Prepared: 20-Jul-16 Analyzed: 26-Jul-16									
Molybdenum	ND	-	0.03	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U

LCS (F607378-BS1)		Prepared: 20-Jul-16 Analyzed: 25-Jul-16									
Molybdenum	5.22	-	0.03	mg/kg	5.0000		104	85-115			
Cadmium	4.294	-	0.010	mg/kg	4.0000		107	85-115			

LCS Dup (F607378-BSD1)		Prepared: 20-Jul-16 Analyzed: 25-Jul-16									
Molybdenum	5.34	-	0.03	mg/kg	5.0000		107	85-115	2.45	20	
Cadmium	4.376	-	0.010	mg/kg	4.0000		109	85-115	1.89	20	

Matrix Spike (F607378-MS1)		Source: 1606629-14RE1		Prepared: 20-Jul-16 Analyzed: 26-Jul-16							
Molybdenum	10.66	-	0.03	mg/kg	9.7004	0.11	109	75-125			AS
Cadmium	2.175	-	0.010	mg/kg	1.9401	0.051	109	75-125			AS

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607378 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F607378-MS2)		Source: 1606629-28RE1		Prepared: 20-Jul-16 Analyzed: 26-Jul-16							
Molybdenum	9.25	-	0.02	mg/kg	7.9946	0.38	111	75-125			AS
Cadmium	1.951	-	0.008	mg/kg	1.5989	0.141	113	75-125			AS
Matrix Spike Dup (F607378-MSD1)		Source: 1606629-14RE1		Prepared: 20-Jul-16 Analyzed: 26-Jul-16							
Molybdenum	10.45	-	0.03	mg/kg	9.7004	0.11	107	75-125	1.99	20	AS
Cadmium	2.151	-	0.010	mg/kg	1.9401	0.051	108	75-125	1.10	20	AS
Matrix Spike Dup (F607378-MSD2)		Source: 1606629-28RE1		Prepared: 20-Jul-16 Analyzed: 26-Jul-16							
Molybdenum	9.16	-	0.02	mg/kg	7.9946	0.38	110	75-125	1.03	20	AS
Cadmium	1.916	-	0.008	mg/kg	1.5989	0.141	111	75-125	1.95	20	AS

Batch F607404 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F607404-BLK1)				Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	ND	-	0.300	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Blank (F607404-BLK2)				Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	ND	-	0.300	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607404 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS (F607404-BS1) Prepared: 13-Jul-16 Analyzed: 26-Jul-16

Vanadium	4.082	-	0.300	mg/kg	5.0000		81.6	80-120			QB-01
Arsenic	4.33	-	0.20	mg/kg	5.0000		86.7	85-115			
Selenium	4.46	-	0.30	mg/kg	5.0000		89.2	80-120			
Cadmium	3.485	-	0.010	mg/kg	4.0000		87.1	85-115			
Antimony	3.598	-	0.025	mg/kg	3.9990		90.0	85-115			

LCS Dup (F607404-BSD1) Prepared: 13-Jul-16 Analyzed: 26-Jul-16

Vanadium	4.844	-	0.300	mg/kg	5.0000		96.9	80-120	17.1	20	QB-01
Arsenic	5.00	-	0.20	mg/kg	5.0000		100	85-115	14.3	20	
Selenium	5.48	-	0.30	mg/kg	5.0000		110	80-120	20.6	20	QR-06
Cadmium	4.095	-	0.010	mg/kg	4.0000		102	85-115	16.1	20	
Antimony	4.145	-	0.025	mg/kg	3.9990		104	85-115	14.1	20	

Matrix Spike (F607404-MS1) Source: 1606629-32RE4 Prepared: 13-Jul-16 Analyzed: 26-Jul-16

Vanadium	5.460	-	0.282	mg/kg	4.6938	0.503	106	75-125			
Arsenic	5.34	-	0.19	mg/kg	4.6938	0.09	112	80-120			
Selenium	8.73	-	0.28	mg/kg	4.6938	3.40	113	65-135			
Cadmium	4.698	-	0.009	mg/kg	3.7550	0.399	114	75-125			
Antimony	4.263	-	0.023	mg/kg	3.7541	0.006	113	80-120			

Matrix Spike (F607404-MS2) Source: 1606629-27RE4 Prepared: 13-Jul-16 Analyzed: 26-Jul-16

Vanadium	6.439	-	0.272	mg/kg	4.5362	1.857	101	75-125			
Arsenic	5.28	-	0.18	mg/kg	4.5362	0.22	111	80-120			
Selenium	7.93	-	0.27	mg/kg	4.5362	2.27	125	65-135			
Cadmium	4.565	-	0.009	mg/kg	3.6290	0.527	111	75-125			
Antimony	4.217	-	0.023	mg/kg	3.6281	0.032	115	80-120			

Matrix Spike (F607404-MS3) Source: 1606629-33RE4 Prepared: 13-Jul-16 Analyzed: 26-Jul-16

Vanadium	18.67	-	0.269	mg/kg	17.934	0.037	104	75-125			AS
Arsenic	20.52	-	0.18	mg/kg	17.934	0.15	114	80-120			AS
Selenium	23.86	-	0.27	mg/kg	17.934	1.71	123	65-135			AS
Cadmium	2.241	-	0.009	mg/kg	1.7934	0.229	112	75-125			AS
Antimony	0.986	-	0.022	mg/kg	0.89670	ND	110	80-120			AS

Eurofins Frontier Global Sciences, Inc.

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Fish (Livers)
Project Manager: Jeffery Levensgood

Reported:
15-Aug-16 16:44

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607404 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F607404-MS4)		Source: 1606629-34RE4		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	21.73	-	0.308	mg/kg	20.558	0.066	105	75-125			AS, QB-01
Arsenic	24.11	-	0.21	mg/kg	20.558	0.46	115	80-120			AS
Selenium	26.55	-	0.31	mg/kg	20.558	1.95	120	65-135			AS
Cadmium	3.008	-	0.010	mg/kg	2.0558	0.666	114	75-125			AS
Antimony	1.139	-	0.026	mg/kg	1.0279	ND	111	80-120			AS

Matrix Spike Dup (F607404-MSD1)		Source: 1606629-32RE4		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	4.792	-	0.265	mg/kg	4.4238	0.503	97.0	75-125	8.54	20	
Arsenic	4.55	-	0.18	mg/kg	4.4238	0.09	101	80-120	10.4	20	
Selenium	7.72	-	0.27	mg/kg	4.4238	3.40	97.6	65-135	15.0	20	
Cadmium	3.971	-	0.009	mg/kg	3.5391	0.399	101	75-125	12.6	20	
Antimony	3.663	-	0.022	mg/kg	3.5382	0.006	103	80-120	9.25	20	

Matrix Spike Dup (F607404-MSD2)		Source: 1606629-27RE4		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	4.851	-	0.207	mg/kg	3.4500	1.857	86.8	75-125	15.1	20	
Arsenic	3.93	-	0.14	mg/kg	3.4500	0.22	107	80-120	3.75	20	
Selenium	6.10	-	0.21	mg/kg	3.4500	2.27	111	65-135	11.8	20	
Cadmium	3.468	-	0.007	mg/kg	2.7600	0.527	107	75-125	4.32	20	
Antimony	3.047	-	0.017	mg/kg	2.7593	0.032	109	80-120	5.41	20	

Matrix Spike Dup (F607404-MSD3)		Source: 1606629-33RE4		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	18.93	-	0.269	mg/kg	17.934	0.037	105	75-125	1.41	20	AS
Arsenic	20.71	-	0.18	mg/kg	17.934	0.15	115	80-120	0.934	20	AS
Selenium	23.26	-	0.27	mg/kg	17.934	1.71	120	65-135	2.74	20	AS
Cadmium	2.234	-	0.009	mg/kg	1.7934	0.229	112	75-125	0.348	20	AS
Antimony	1.004	-	0.022	mg/kg	0.89670	ND	112	80-120	1.79	20	AS

Matrix Spike Dup (F607404-MSD4)		Source: 1606629-34RE4		Prepared: 13-Jul-16 Analyzed: 26-Jul-16							
Vanadium	21.81	-	0.308	mg/kg	20.558	0.066	106	75-125	0.387	20	AS, QB-01
Arsenic	23.84	-	0.21	mg/kg	20.558	0.46	114	80-120	1.16	20	AS
Selenium	26.58	-	0.31	mg/kg	20.558	1.95	120	65-135	0.124	20	AS
Cadmium	2.949	-	0.010	mg/kg	2.0558	0.666	111	75-125	2.56	20	AS
Antimony	1.135	-	0.026	mg/kg	1.0279	ND	110	80-120	0.393	20	AS

Eurofins Frontier Global Sciences, Inc.

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Fish (Livers)
 Project Manager: Jeffery Levensgood

Reported:
 15-Aug-16 16:44

Notes and Definitions

- Z-15 RL raised to 0.325 ppm as per PGS due to interferences with sample causing bias in CCB. TR 7/27/16
- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-08 The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
- QR-06 The RPD value for the LCS/LCSD was outside of acceptance limits. Batch QC acceptable based on MS/MSD, and where applicable, matrix duplicate RPD value(s) within control limits.
- QM-14 The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 2 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- QM-12 Continuing calibration verification (CCV) and/or blank spike/blank spike duplicate (BS/BSD) recoveries above upper control limits. All reported sample concentrations were below the reporting limit.
- QB-02 The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the sample concentrations are less than the MRL.
- QB-01 The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the blank concentration(s) are less than 10% of the sample result.
- FB This blank is a filtration blank. Data is reported for informational purposes only.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

30 September 2016

Jeff Levensgood PhD, CWB
University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign, ILLINOIS 61820

RE: Trace Metals In Snails, Fish Liver And Fillet 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Patrick Garcia-Strickland". The signature is written in a cursive style with a large initial "P".

Patrick Garcia-Strickland
Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
122 Long Pond North 1	1608275-01	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
123 Long Pond Middle 1	1608275-02	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
124 Long Pond Middle 2	1608275-03	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
125 Long Pond Middle 3	1608275-04	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
126 Long Pond Middle 4	1608275-05	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
127 Long Pond Middle 5	1608275-06	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
128 Long Pond Middle 6	1608275-07	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
129 Pond 6 Middle 1	1608275-08	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
130 Pond 6 Middle 2	1608275-09	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
131 Pond 6 Middle 3	1608275-10	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
132 Pond 6 Middle 4	1608275-11	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
133 Pond 6 Middle 5	1608275-12	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
135 Pond 6 South 1	1608275-13	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
136 Pond 6 South 2	1608275-14	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
137 Pond 6 South 3	1608275-15	Tissue	25-Jul-16 00:00	09-Aug-16 10:00
139 Long Pond South 1	1608275-16	Tissue	25-Jul-16 00:00	09-Aug-16 10:00

Eurofins Frontier Global Sciences, Inc.

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levengood PhD, CWBReported:
30-Sep-16 15:32

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 8/9/2016 10:00:00 AM . The samples were received intact, on-ice within a sealed cooler at 3.3 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

Trace metals preparation and analysis was performed by inductively coupled plasma mass spectrometry (ICP-MS) in accordance with EFGS-054, a modified EPA 1638.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

Sample Receipt Checklist

EFGS Work Order: 1608275

Client: University of Illinois

Date & Time Received: _____

Date Labeled: 8/16 Labeled By: wt

Project: 618/16 1000

Received By: CSP

Label Verified By: CSP

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>N</u>	
Custody seals signed:	<u>N</u>	

TID: <u>5225</u>	CF: <u>-0.1</u> °C	Date/time: <u>8/9/16 1000</u>	By: <u>CSP</u>
Cooler 1: <u>3.4</u> °C	w/CF: <u>3.3</u> °C	Cooler 4: _____ °C	w/CF: _____ °C
Cooler 2: _____ °C	w/CF: _____ °C	Cooler 5: _____ °C	w/CF: _____ °C
Cooler 3: _____ °C	w/CF: _____ °C	Cooler 6: _____ °C	w/CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>N/A</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1608275

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
Phone: 425-686-1996
Fax: 425-686-3096
info@FrontierGS.com
http://www.FrontierGS.com



Frontier Global Sciences

Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:	
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:	
Project Name: Pond 6 Dragonflies		E-mail: levensgood@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.	
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Address:		Invoice To: University of Illinois									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N	
Phone: 2173336767 Fax:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									(If yes, please contact PM)	
E-mail: levensgood@illinois.edu		Phone: Fax:						EDD <input type="checkbox"/> Y <input type="checkbox"/> N				
		E-mail:						QA <input type="checkbox"/> Standard <input type="checkbox"/> High				
								Comments				
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time							
1	117	Long Pond North 1	1	TS	7/25/16	JL, DS	NA	x				
2	118	Long Pond North 2	1	x			"	x				
2	119	Long Pond North 3	1	x			"	x				
4	120	Long Pond North 4	1	x			"	x				
5	121	Long Pond North 5	1	x			"	x				
6	122	Long Pond North 1	1	x			"	x				
7	123	Long Pond Middle 1	1	x			"	x				
8	124	Long Pond Middle 2	1	x			"	x				
9	125	Long Pond Middle 3	1	x			"	x				
10	126	Long Pond Middle 4	1	x			"	x				
11	127	Long Pond Middle 5	1	x			"	x				
12	128	Long Pond Middle 6	1	x			"	x				
For Laboratory Use Only			Matrix Codes:		Relinquished By:		Received By:		Received By:			
COC Seal: NA		Comments:		FW: Fresh Water		Name: Jeff M Levensgood		Name: Amy Dickerson		Name: Corbin Powell		
Cooler Temp: 3.3°C				WW: Waste Water								
Carrier: UPS				SB: Sea and Brackish Water								
VTSR: 1000				SS: Soil and Sediment								
# of Coolers:		TS: Plant and Animal Tissue		Date & Time: 7/25/16 2:00pm		Date & Time: 7/25/16 2:01pm		Date & Time: 8/9/16 1000				
		HC: Hydrocarbons		Tracking number: 12 619 179 01 5681 9991								
		TR: Trap		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.								
		OT: Other										
Sample Disposal:						Customer Approval: _____ Date: _____						
<input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal - 30 Days after report <input type="checkbox"/> Retain for _____ weeks after report (storage fees may apply)												



Frontier Global Sciences

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
Phone: 425-686-1996
Fax: 425-686-3096
info@FrontierGS.com
http://www.FrontierGS.com

Client: University of Illinois
Contact: Jeff Levensgood
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820
Project Name: Pond 6 Dragonflies
Report To: Jeff Levensgood
Invoice To: University of Illinois
Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866
Phone: 2173336767 Fax:
E-mail: levensgoo@illinois.edu

Table with columns: No., Bag ID #, Sample ID, # of bags, Matrix, Date & Time, Sampled By, Field Filtered (Y/N), Field Preserved: HNO3 HCl BrCl Other (%), Analyses Requested (As, B, Be, Cd, Co, Cr, Hg, Pb, Mo, Sb, Se, Ti, V, Zn), EFGS PM: Date, TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs., Saturday delivery? Y N, EDD Y N, QA Standard High, Comments

For Laboratory Use Only
COC Seal:
Cooler Temp:
Carrier:
VTSR:
of Coolers:
Comments:
Matrix Codes:
FW: Fresh Water
WW: Waste Water
SB: Sea and Brackish Water
SS: Soil and Sediment
TS: Plant and Animal Tissue
HC: Hydrocarbons
TR: Trap
OT: Other
Relinquished By:
Received By:
Name:
Organization:
Date & Time:
Tracking number:

Sample Disposal:
Return (shipping fees may apply)
Standard Disposal - 30 Days after report
Retain for weeks after report (storage fees may apply)
By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.
Customer Approval:
Date:

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

122 Long Pond North 1
1608275-01

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.61	-	0.18	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.073	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.19	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.019	-	0.009	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.21	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.22	-	0.14	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	9.1	-	2.7	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.05	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.186	-	0.018	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.023	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.31	-	0.27	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	0.318	-	0.137	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	21.2	-	0.23	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

123 Long Pond Middle 1
1608275-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.50	-	0.16	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.064	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.92	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.025	-	0.008	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.08	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	11.2	-	2.4	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.06	-	0.02	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.076	-	0.016	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.020	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.24	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	ND	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	ND	-	0.120	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Zinc	12.5	-	0.20	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

124 Long Pond Middle 2
1608275-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.34	-	0.18	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.072	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.15	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.014	-	0.009	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.09	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.13	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	10.5	-	2.7	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.04	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.097	-	0.018	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.022	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.27	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	ND	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	ND	-	0.134	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Zinc	16.1	-	0.22	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

125 Long Pond Middle 3
1608275-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.27	-	0.16	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.062	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.87	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.011	-	0.008	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.06	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.12	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	6.0	-	2.3	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.02	-	0.02	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Lead	0.087	-	0.016	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.019	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.23	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	ND	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	ND	-	0.117	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Zinc	10.1	-	0.19	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

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University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Dragonflies
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:32

126 Long Pond Middle 4
1608275-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.45	-	0.20	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.079	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.36	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.018	-	0.010	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.08	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	15.7	-	3.0	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.03	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.089	-	0.020	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.025	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.30	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	ND	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	ND	-	0.148	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Zinc	18.3	-	0.25	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

127 Long Pond Middle 5
1608275-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.20	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Beryllium	ND	-	0.080	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.40	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	ND	-	0.010	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cobalt	0.06	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	12.7	-	3.0	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	ND	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Lead	0.091	-	0.020	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.025	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.30	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	ND	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	ND	-	0.150	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Zinc	13.4	-	0.25	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

128 Long Pond Middle 6
1608275-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.28	-	0.14	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.056	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.69	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.012	-	0.007	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.06	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.11	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	11.1	-	2.1	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.02	-	0.02	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Lead	0.076	-	0.014	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.018	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.23	-	0.21	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	ND	-	0.106	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Zinc	15.1	-	0.18	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

129 Pond 6 Middle 1
1608275-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.47	-	0.20	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.080	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.39	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.034	-	0.010	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.11	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	24.4	-	3.0	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.06	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.093	-	0.020	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.025	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.44	-	0.30	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	0.166	-	0.150	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	20.6	-	0.25	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Dragonflies
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:32

130 Pond 6 Middle 2
1608275-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.40	-	0.16	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.062	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.86	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.024	-	0.008	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.13	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.13	-	0.12	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	16.1	-	2.3	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.03	-	0.02	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.146	-	0.016	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.019	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.24	-	0.23	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.003	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.226	-	0.116	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	17.9	-	0.19	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

131 Pond 6 Middle 3
1608275-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.53	-	0.16	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.066	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.97	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.023	-	0.008	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.19	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.16	-	0.12	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	19.3	-	2.5	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.05	-	0.02	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.195	-	0.016	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.021	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.45	-	0.25	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.004	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.302	-	0.123	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	18.1	-	0.21	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

132 Pond 6 Middle 4
1608275-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.05	-	0.15	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.061	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.83	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.042	-	0.008	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.31	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.24	-	0.11	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	21.0	-	2.3	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.07	-	0.02	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.299	-	0.015	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.019	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.51	-	0.23	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.005	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.624	-	0.115	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	22.4	-	0.19	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

133 Pond 6 Middle 5
1608275-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.52	-	0.18	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.070	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.11	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	ND	-	0.009	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cobalt	0.04	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Chromium	ND	-	0.13	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	49.1	-	2.6	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	1.42	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.039	-	0.018	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.022	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.57	-	0.26	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.007	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	ND	-	0.132	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Zinc	44.5	-	0.22	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

135 Pond 6 South 1
1608275-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.31	-	0.20	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.078	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.34	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.012	-	0.010	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.13	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.16	-	0.15	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	13.0	-	2.9	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	ND	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Lead	0.168	-	0.020	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.024	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.29	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	0.003	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.287	-	0.146	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	12.0	-	0.24	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

136 Pond 6 South 2

1608275-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.28	-	0.18	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.073	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.19	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.009	-	0.009	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cobalt	0.13	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.23	-	0.14	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	11.7	-	2.7	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	ND	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Lead	0.210	-	0.018	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.023	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.27	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	0.003	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.335	-	0.137	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	12.0	-	0.23	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Dragonflies
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:32

137 Pond 6 South 3
1608275-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.44	-	0.19	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.075	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.24	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.011	-	0.009	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.14	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	32.5	-	2.8	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.03	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.154	-	0.019	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.023	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.28	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	0.003	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.242	-	0.140	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	13.8	-	0.23	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Dragonflies
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:32

139 Long Pond South 1
1608275-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	0.52	-	0.19	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.078	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.33	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	ND	-	0.010	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cobalt	0.09	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.15	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	21.0	-	2.9	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.04	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.229	-	0.019	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.024	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.29	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	0.002	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	0.175	-	0.146	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	21.4	-	0.24	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL1)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.029	-		µg/L	0.030000		95.7				
Boron	1.39	-		µg/L	1.5000		92.5				
Vanadium	0.050	-		µg/L	0.050000		100				
Chromium	0.06	-		µg/L	0.050000		128				
Cobalt	0.06	-		µg/L	0.050000		110				
Arsenic	0.07	-		µg/L	0.075000		88.7				
Selenium	0.29	-		µg/L	0.30000		98.3				
Cadmium	0.010	-		µg/L	0.010000		98.3				
Antimony	0.010	-		µg/L	0.010000		103				
Thallium	0.003	-		µg/L	0.0025000		111				
Lead	0.023	-		µg/L	0.020000		114				

Cal Standard (6I20023-CAL2)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.065	-		µg/L	0.060000		108				
Boron	2.85	-		µg/L	3.0000		94.9				
Vanadium	0.112	-		µg/L	0.10000		112				
Chromium	0.11	-		µg/L	0.10000		115				
Cobalt	0.11	-		µg/L	0.10000		108				
Zinc	0.14	-		µg/L	0.20000		67.9				
Arsenic	0.15	-		µg/L	0.15000		100				
Selenium	0.51	-		µg/L	0.60000		84.9				
Cadmium	0.020	-		µg/L	0.020000		99.9				
Antimony	0.022	-		µg/L	0.020000		110				
Thallium	0.006	-		µg/L	0.0050000		113				
Lead	0.045	-		µg/L	0.040000		113				

Cal Standard (6I20023-CAL3)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.125	-		µg/L	0.12000		104				
Boron	5.81	-		µg/L	6.0000		96.8				
Vanadium	0.211	-		µg/L	0.20000		105				
Chromium	0.24	-		µg/L	0.20000		118				
Cobalt	0.21	-		µg/L	0.20000		106				
Zinc	0.96	-		µg/L	0.40000		240				
Arsenic	0.29	-		µg/L	0.30000		98.0				

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL3)

Prepared & Analyzed: 19-Sep-16

Selenium	1.18	-		µg/L	1.2000		98.4				
Cadmium	0.041	-		µg/L	0.040000		102				
Antimony	0.043	-		µg/L	0.040000		106				
Thallium	0.012	-		µg/L	0.010000		120				
Lead	0.091	-		µg/L	0.080000		114				

Cal Standard (6I20023-CAL4)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.247	-		µg/L	0.25000		99.0				
Boron	19.43	-		µg/L	20.000		97.1				
Vanadium	4.988	-		µg/L	5.0000		99.8				
Chromium	4.99	-		µg/L	5.0000		99.7				
Cobalt	2.53	-		µg/L	2.5000		101				
Zinc	12.71	-		µg/L	12.500		102				
Arsenic	4.97	-		µg/L	5.0000		99.4				
Selenium	4.88	-		µg/L	5.0000		97.5				
Cadmium	0.512	-		µg/L	0.50000		102				
Antimony	0.255	-		µg/L	0.25000		102				
Thallium	0.261	-		µg/L	0.25000		104				
Lead	1.323	-		µg/L	1.2500		106				

Cal Standard (6I20023-CAL5)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.491	-		µg/L	0.50000		98.1				
Boron	37.65	-		µg/L	40.000		94.1				
Vanadium	9.840	-		µg/L	10.000		98.4				
Chromium	9.91	-		µg/L	10.000		99.1				
Cobalt	4.96	-		µg/L	5.0000		99.3				
Zinc	24.71	-		µg/L	25.000		98.9				
Arsenic	9.76	-		µg/L	10.000		97.6				
Selenium	9.59	-		µg/L	10.000		95.9				
Cadmium	0.980	-		µg/L	1.0000		98.0				
Antimony	0.512	-		µg/L	0.50000		102				
Thallium	0.526	-		µg/L	0.50000		105				
Lead	2.690	-		µg/L	2.5000		108				

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Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL6)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.998	-		µg/L	1.0000		99.8				
Boron	77.20	-		µg/L	80.000		96.5				
Vanadium	19.80	-		µg/L	20.000		99.0				
Chromium	19.74	-		µg/L	20.000		98.7				
Cobalt	9.93	-		µg/L	10.000		99.3				
Zinc	50.71	-		µg/L	50.000		101				
Arsenic	19.59	-		µg/L	20.000		97.9				
Selenium	19.91	-		µg/L	20.000		99.6				
Cadmium	1.963	-		µg/L	2.0000		98.2				
Antimony	1.008	-		µg/L	1.0000		101				
Thallium	1.028	-		µg/L	1.0000		103				
Lead	5.237	-		µg/L	5.0000		105				

Cal Standard (6I20023-CAL7)

Prepared & Analyzed: 19-Sep-16

Beryllium	2.453	-		µg/L	2.5000		98.1				
Boron	191.8	-		µg/L	200.00		95.9				
Vanadium	49.20	-		µg/L	50.000		98.4				
Chromium	48.53	-		µg/L	50.000		97.1				
Cobalt	24.27	-		µg/L	25.000		97.1				
Zinc	122.1	-		µg/L	125.00		97.7				
Arsenic	48.44	-		µg/L	50.000		96.9				
Selenium	48.76	-		µg/L	50.000		97.5				
Cadmium	4.951	-		µg/L	5.0000		99.0				
Antimony	2.508	-		µg/L	2.5000		100				
Thallium	2.549	-		µg/L	2.5000		102				
Lead	12.76	-		µg/L	12.500		102				

Cal Standard (6I20023-CAL8)

Prepared & Analyzed: 19-Sep-16

Beryllium	5.060	-		µg/L	5.0000		101				
Boron	390.2	-		µg/L	400.00		97.6				
Vanadium	99.25	-		µg/L	100.00		99.3				
Chromium	98.55	-		µg/L	100.00		98.6				
Cobalt	49.21	-		µg/L	50.000		98.4				
Zinc	247.5	-		µg/L	250.00		99.0				

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL8)

Prepared & Analyzed: 19-Sep-16

Arsenic	98.60	-		µg/L	100.00		98.6				
Selenium	96.93	-		µg/L	100.00		96.9				
Cadmium	9.975	-		µg/L	10.000		99.7				
Antimony	5.037	-		µg/L	5.0000		101				
Thallium	5.079	-		µg/L	5.0000		102				
Lead	25.78	-		µg/L	25.000		103				

Cal Standard (6I20023-CAL9)

Prepared & Analyzed: 19-Sep-16

Beryllium	9.983	-		µg/L	10.000		99.8				
Boron	807.3	-		µg/L	800.00		101				
Vanadium	200.6	-		µg/L	200.00		100				
Chromium	201.1	-		µg/L	200.00		101				
Cobalt	100.6	-		µg/L	100.00		101				
Zinc	501.9	-		µg/L	500.00		100				
Arsenic	201.1	-		µg/L	200.00		101				
Selenium	201.9	-		µg/L	200.00		101				
Cadmium	20.03	-		µg/L	20.000		100				
Antimony	9.978	-		µg/L	10.000		99.8				
Thallium	9.944	-		µg/L	10.000		99.4				
Lead	49.51	-		µg/L	50.000		99.0				

Cal Standard (6I20023-CALA)

Prepared & Analyzed: 19-Sep-16

Molybdenum	0.03	-		µg/L	0.029910		97.1				
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Cal Standard (6I20023-CALB)

Prepared & Analyzed: 19-Sep-16

Molybdenum	0.06	-		µg/L	0.059820		96.3				
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Cal Standard (6I20023-CALC)

Prepared & Analyzed: 19-Sep-16

Molybdenum	0.12	-		µg/L	0.11964		98.2				
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Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
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Quality Control Data

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Batch 6I20023 - F608501

Cal Standard (6I20023-CALD) Prepared & Analyzed: 19-Sep-16

Molybdenum	2.56	-		µg/L	2.4925		103				
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Cal Standard (6I20023-CALE) Prepared & Analyzed: 19-Sep-16

Molybdenum	5.03	-		µg/L	4.9850		101				
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Cal Standard (6I20023-CALF) Prepared & Analyzed: 19-Sep-16

Molybdenum	10.12	-		µg/L	9.9700		102				
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Cal Standard (6I20023-CALG) Prepared & Analyzed: 19-Sep-16

Molybdenum	24.67	-		µg/L	24.925		99.0				
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Cal Standard (6I20023-CALH) Prepared & Analyzed: 19-Sep-16

Molybdenum	50.61	-		µg/L	49.850		102				
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Cal Standard (6I20023-CALI) Prepared & Analyzed: 19-Sep-16

Molybdenum	99.76	-		µg/L	99.700		100				
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Calibration Blank (6I20023-CCB1) Prepared & Analyzed: 19-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	1.03	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	0.03	-		µg/L							
Selenium	-0.008	-		µg/L							U
Molybdenum	0.05	-		µg/L							
Cadmium	0.026	-		µg/L							
Antimony	0.004	-		µg/L							
Thallium	0.0007	-		µg/L							
Lead	-0.00008	-		µg/L							U

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Dragonflies Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:32
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB2)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.0008	-		µg/L							
Boron	1.05	-		µg/L							
Vanadium	0.0008	-		µg/L							
Chromium	0.008	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.04	-		µg/L							U
Arsenic	0.008	-		µg/L							
Selenium	0.17	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.001	-		µg/L							
Antimony	0.004	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.0003	-		µg/L							U

Calibration Blank (6I20023-CCB3)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.0009	-		µg/L							
Boron	1.25	-		µg/L							
Vanadium	0.005	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.10	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.002	-		µg/L							
Antimony	0.005	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.00005	-		µg/L							U

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB4)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	1.07	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.009	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.18	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0008	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.0003	-		µg/L							
Lead	-0.0001	-		µg/L							U

Calibration Blank (6I20023-CCB5)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	1.54	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.005	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.009	-		µg/L							
Selenium	0.09	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0003	-		µg/L							
Antimony	0.007	-		µg/L							
Thallium	0.0003	-		µg/L							
Lead	0.00009	-		µg/L							

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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB6)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0007	-		µg/L							
Boron	1.66	-		µg/L							
Vanadium	0.004	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.02	-		µg/L							
Selenium	0.07	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0004	-		µg/L							U
Antimony	0.002	-		µg/L							
Thallium	0.0002	-		µg/L							
Lead	0.0002	-		µg/L							

Calibration Blank (6I20023-CCB7)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	1.38	-		µg/L							
Vanadium	0.010	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.06	-		µg/L							U
Arsenic	0.02	-		µg/L							
Selenium	0.28	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0007	-		µg/L							
Antimony	0.110	-		µg/L							
Thallium	0.003	-		µg/L							
Lead	0.0006	-		µg/L							

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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB8)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	1.06	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.07	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.008	-		µg/L							
Thallium	0.0005	-		µg/L							
Lead	0.000	-		µg/L							U

Calibration Blank (6I20023-CCB9)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0004	-		µg/L							
Boron	0.81	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.02	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.10	-		µg/L							U
Arsenic	0.007	-		µg/L							
Selenium	-0.01	-		µg/L							U
Molybdenum	0.02	-		µg/L							
Cadmium	0.0006	-		µg/L							
Antimony	0.006	-		µg/L							
Thallium	0.0006	-		µg/L							
Lead	0.0002	-		µg/L							

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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBA)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.001	-		µg/L							
Boron	1.18	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	-0.002	-		µg/L							U
Selenium	0.18	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0002	-		µg/L							U
Antimony	0.005	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.00001	-		µg/L							U

Calibration Blank (6I20023-CCBB)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	0.98	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.009	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	-0.02	-		µg/L							U
Molybdenum	0.05	-		µg/L							
Cadmium	-0.003	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0002	-		µg/L							

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Patrick Garcia-Strickland, Laboratory Director



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Dragonflies Project Manager: Jeff Levengood PhD, CWB	Reported: 30-Sep-16 15:32
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBC)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0004	-		µg/L							
Boron	0.79	-		µg/L							
Vanadium	0.005	-		µg/L							
Chromium	0.02	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.003	-		µg/L							
Selenium	0.16	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.0007	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBD)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.001	-		µg/L							
Boron	1.14	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.08	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.001	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0003	-		µg/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBE) Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.001	-		µg/L							
Boron	1.03	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.008	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.006	-		µg/L							
Selenium	0.03	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBF) Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	0.84	-		µg/L							
Vanadium	0.004	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.13	-		µg/L							U
Arsenic	-0.02	-		µg/L							U
Selenium	0.07	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.002	-		µg/L							U
Antimony	0.00005	-		µg/L							
Thallium	0.002	-		µg/L							
Lead	-0.00009	-		µg/L							U

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBG)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0004	-		µg/L							
Boron	0.67	-		µg/L							
Vanadium	0.0007	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.10	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.10	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0007	-		µg/L							
Antimony	0.0003	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBH)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	0.67	-		µg/L							
Vanadium	0.0003	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	-0.01	-		µg/L							U
Selenium	0.06	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.003	-		µg/L							U
Antimony	0.0001	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.000	-		µg/L							U

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Dragonflies Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:32
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBI)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	0.70	-		µg/L							
Vanadium	0.001	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	0.0005	-		µg/L							
Selenium	0.05	-		µg/L							
Molybdenum	0.02	-		µg/L							
Cadmium	-0.002	-		µg/L							U
Antimony	-0.00009	-		µg/L							U
Thallium	0.001	-		µg/L							
Lead	0.00007	-		µg/L							

Calibration Check (6I20023-CCV1)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.062	-		µg/L	0.99940		106	65-135			
Boron	102.9	-		µg/L	100.00		103	65-135			
Vanadium	51.32	-		µg/L	49.980		103	85-115			
Chromium	49.22	-		µg/L	50.000		98.4	85-115			
Cobalt	19.79	-		µg/L	20.020		98.8	85-115			
Zinc	54.31	-		µg/L	50.000		109	75-125			
Arsenic	51.37	-		µg/L	50.000		103	85-115			
Selenium	53.41	-		µg/L	50.000		107	80-120			
Molybdenum	10.47	-		µg/L	10.002		105	85-115			
Cadmium	5.187	-		µg/L	5.0020		104	85-115			
Antimony	1.045	-		µg/L	0.99960		105	85-115			
Thallium	1.001	-		µg/L	1.0004		100	85-115			
Lead	10.16	-		µg/L	10.000		102	80-120			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV2)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.101	-		µg/L	0.99940		110	65-135			
Boron	104.5	-		µg/L	100.00		104	65-135			
Vanadium	50.33	-		µg/L	49.980		101	85-115			
Chromium	48.15	-		µg/L	50.000		96.3	85-115			
Cobalt	19.58	-		µg/L	20.020		97.8	85-115			
Zinc	52.34	-		µg/L	50.000		105	75-125			
Arsenic	51.35	-		µg/L	50.000		103	85-115			
Selenium	53.64	-		µg/L	50.000		107	80-120			
Molybdenum	10.53	-		µg/L	10.002		105	85-115			
Cadmium	5.178	-		µg/L	5.0020		104	85-115			
Antimony	1.055	-		µg/L	0.99960		106	85-115			
Thallium	1.020	-		µg/L	1.0004		102	85-115			
Lead	10.38	-		µg/L	10.000		104	80-120			

Calibration Check (6I20023-CCV3)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.074	-		µg/L	0.99940		107	65-135			
Boron	104.8	-		µg/L	100.00		105	65-135			
Vanadium	47.96	-		µg/L	49.980		96.0	85-115			
Chromium	47.66	-		µg/L	50.000		95.3	85-115			
Cobalt	19.47	-		µg/L	20.020		97.2	85-115			
Zinc	51.97	-		µg/L	50.000		104	75-125			
Arsenic	50.76	-		µg/L	50.000		102	85-115			
Selenium	53.08	-		µg/L	50.000		106	80-120			
Molybdenum	10.54	-		µg/L	10.002		105	85-115			
Cadmium	5.179	-		µg/L	5.0020		104	85-115			
Antimony	1.092	-		µg/L	0.99960		109	85-115			
Thallium	0.999	-		µg/L	1.0004		99.9	85-115			
Lead	10.28	-		µg/L	10.000		103	80-120			

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV4)

Prepared & Analyzed: 19-Sep-16


Beryllium	1.086	-		µg/L	0.99940		109	65-135			
Boron	102.1	-		µg/L	100.00		102	65-135			
Vanadium	50.07	-		µg/L	49.980		100	85-115			
Chromium	47.98	-		µg/L	50.000		96.0	85-115			
Cobalt	19.47	-		µg/L	20.020		97.3	85-115			
Zinc	51.97	-		µg/L	50.000		104	75-125			
Arsenic	50.91	-		µg/L	50.000		102	85-115			
Selenium	52.58	-		µg/L	50.000		105	80-120			
Molybdenum	10.63	-		µg/L	10.002		106	85-115			
Cadmium	5.105	-		µg/L	5.0020		102	85-115			
Antimony	1.086	-		µg/L	0.99960		109	85-115			
Thallium	1.000	-		µg/L	1.0004		100	85-115			
Lead	10.16	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV5)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.084	-		µg/L	0.99940		108	65-135			
Boron	101.9	-		µg/L	100.00		102	65-135			
Vanadium	47.68	-		µg/L	49.980		95.4	85-115			
Chromium	48.49	-		µg/L	50.000		97.0	85-115			
Cobalt	19.56	-		µg/L	20.020		97.7	85-115			
Zinc	52.30	-		µg/L	50.000		105	75-125			
Arsenic	50.87	-		µg/L	50.000		102	85-115			
Selenium	53.96	-		µg/L	50.000		108	80-120			
Molybdenum	10.70	-		µg/L	10.002		107	85-115			
Cadmium	5.209	-		µg/L	5.0020		104	85-115			
Antimony	1.088	-		µg/L	0.99960		109	85-115			
Thallium	1.008	-		µg/L	1.0004		101	85-115			
Lead	10.21	-		µg/L	10.000		102	80-120			

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV6)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16


Beryllium	1.054	-		µg/L	0.99940		105	65-135			
Boron	104.4	-		µg/L	100.00		104	65-135			
Vanadium	54.07	-		µg/L	49.980		108	85-115			
Chromium	48.13	-		µg/L	50.000		96.3	85-115			
Cobalt	19.63	-		µg/L	20.020		98.1	85-115			
Zinc	51.49	-		µg/L	50.000		103	75-125			
Arsenic	50.64	-		µg/L	50.000		101	85-115			
Selenium	52.33	-		µg/L	50.000		105	80-120			
Molybdenum	10.83	-		µg/L	10.002		108	85-115			
Cadmium	5.237	-		µg/L	5.0020		105	85-115			
Antimony	1.084	-		µg/L	0.99960		108	85-115			
Thallium	1.009	-		µg/L	1.0004		101	85-115			
Lead	10.24	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV7)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.109	-		µg/L	0.99940		111	65-135			
Boron	108.7	-		µg/L	100.00		109	65-135			
Vanadium	48.99	-		µg/L	49.980		98.0	85-115			
Chromium	49.06	-		µg/L	50.000		98.1	85-115			
Cobalt	19.50	-		µg/L	20.020		97.4	85-115			
Zinc	52.19	-		µg/L	50.000		104	75-125			
Arsenic	51.30	-		µg/L	50.000		103	85-115			
Selenium	54.05	-		µg/L	50.000		108	80-120			
Molybdenum	10.54	-		µg/L	10.002		105	85-115			
Cadmium	5.088	-		µg/L	5.0020		102	85-115			
Antimony	1.768	-		µg/L	0.99960		177	85-115			
Thallium	1.007	-		µg/L	1.0004		101	85-115			
Lead	9.994	-		µg/L	10.000		99.9	80-120			

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV8)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.036	-		µg/L	0.99940		104	65-135			
Boron	98.88	-		µg/L	100.00		98.9	65-135			
Vanadium	49.57	-		µg/L	49.980		99.2	85-115			
Chromium	49.19	-		µg/L	50.000		98.4	85-115			
Cobalt	19.60	-		µg/L	20.020		97.9	85-115			
Zinc	52.85	-		µg/L	50.000		106	75-125			
Arsenic	50.83	-		µg/L	50.000		102	85-115			
Selenium	52.64	-		µg/L	50.000		105	80-120			
Molybdenum	10.57	-		µg/L	10.002		106	85-115			
Cadmium	5.208	-		µg/L	5.0020		104	85-115			
Antimony	1.066	-		µg/L	0.99960		107	85-115			
Thallium	1.010	-		µg/L	1.0004		101	85-115			
Lead	10.21	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV9)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.036	-		µg/L	0.99940		104	65-135			
Boron	102.0	-		µg/L	100.00		102	65-135			
Vanadium	50.12	-		µg/L	49.980		100	85-115			
Chromium	48.34	-		µg/L	50.000		96.7	85-115			
Cobalt	19.76	-		µg/L	20.020		98.7	85-115			
Zinc	52.76	-		µg/L	50.000		106	75-125			
Arsenic	51.53	-		µg/L	50.000		103	85-115			
Selenium	53.64	-		µg/L	50.000		107	80-120			
Molybdenum	10.67	-		µg/L	10.002		107	85-115			
Cadmium	5.193	-		µg/L	5.0020		104	85-115			
Antimony	1.038	-		µg/L	0.99960		104	85-115			
Thallium	1.003	-		µg/L	1.0004		100	85-115			
Lead	10.13	-		µg/L	10.000		101	80-120			

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVA)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.042	-		µg/L	0.99940		104	65-135			
Boron	98.95	-		µg/L	100.00		99.0	65-135			
Vanadium	48.57	-		µg/L	49.980		97.2	85-115			
Chromium	49.00	-		µg/L	50.000		98.0	85-115			
Cobalt	19.67	-		µg/L	20.020		98.2	85-115			
Zinc	52.15	-		µg/L	50.000		104	75-125			
Arsenic	51.19	-		µg/L	50.000		102	85-115			
Selenium	51.63	-		µg/L	50.000		103	80-120			
Molybdenum	10.69	-		µg/L	10.002		107	85-115			
Cadmium	5.196	-		µg/L	5.0020		104	85-115			
Antimony	1.041	-		µg/L	0.99960		104	85-115			
Thallium	1.005	-		µg/L	1.0004		100	85-115			
Lead	10.17	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCVB)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.032	-		µg/L	0.99940		103	65-135			
Boron	97.13	-		µg/L	100.00		97.1	65-135			
Vanadium	51.50	-		µg/L	49.980		103	85-115			
Chromium	47.87	-		µg/L	50.000		95.7	85-115			
Cobalt	19.61	-		µg/L	20.020		97.9	85-115			
Zinc	52.68	-		µg/L	50.000		105	75-125			
Arsenic	50.92	-		µg/L	50.000		102	85-115			
Selenium	51.37	-		µg/L	50.000		103	80-120			
Molybdenum	10.93	-		µg/L	10.002		109	85-115			
Cadmium	5.294	-		µg/L	5.0020		106	85-115			
Antimony	1.075	-		µg/L	0.99960		108	85-115			
Thallium	1.016	-		µg/L	1.0004		102	85-115			
Lead	10.27	-		µg/L	10.000		103	80-120			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVC)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.028	-		µg/L	0.99940		103	65-135			
Boron	97.11	-		µg/L	100.00		97.1	65-135			
Vanadium	50.07	-		µg/L	49.980		100	85-115			
Chromium	47.88	-		µg/L	50.000		95.8	85-115			
Cobalt	19.44	-		µg/L	20.020		97.1	85-115			
Zinc	51.66	-		µg/L	50.000		103	75-125			
Arsenic	50.28	-		µg/L	50.000		101	85-115			
Selenium	50.78	-		µg/L	50.000		102	80-120			
Molybdenum	10.64	-		µg/L	10.002		106	85-115			
Cadmium	5.236	-		µg/L	5.0020		105	85-115			
Antimony	1.063	-		µg/L	0.99960		106	85-115			
Thallium	1.009	-		µg/L	1.0004		101	85-115			
Lead	10.29	-		µg/L	10.000		103	80-120			

Calibration Check (6I20023-CCVD)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.027	-		µg/L	0.99940		103	65-135			
Boron	98.01	-		µg/L	100.00		98.0	65-135			
Vanadium	50.57	-		µg/L	49.980		101	85-115			
Chromium	47.88	-		µg/L	50.000		95.8	85-115			
Cobalt	19.46	-		µg/L	20.020		97.2	85-115			
Zinc	52.67	-		µg/L	50.000		105	75-125			
Arsenic	50.94	-		µg/L	50.000		102	85-115			
Selenium	52.57	-		µg/L	50.000		105	80-120			
Molybdenum	10.98	-		µg/L	10.002		110	85-115			
Cadmium	5.349	-		µg/L	5.0020		107	85-115			
Antimony	1.086	-		µg/L	0.99960		109	85-115			
Thallium	1.026	-		µg/L	1.0004		103	85-115			
Lead	10.36	-		µg/L	10.000		104	80-120			

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVE)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.040	-		µg/L	0.99940		104	65-135			
Boron	100.3	-		µg/L	100.00		100	65-135			
Vanadium	49.98	-		µg/L	49.980		100	85-115			
Chromium	48.97	-		µg/L	50.000		97.9	85-115			
Cobalt	19.56	-		µg/L	20.020		97.7	85-115			
Zinc	53.19	-		µg/L	50.000		106	75-125			
Arsenic	51.65	-		µg/L	50.000		103	85-115			
Selenium	52.76	-		µg/L	50.000		106	80-120			
Molybdenum	10.79	-		µg/L	10.002		108	85-115			
Cadmium	5.327	-		µg/L	5.0020		106	85-115			
Antimony	1.066	-		µg/L	0.99960		107	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.37	-		µg/L	10.000		104	80-120			

Calibration Check (6I20023-CCVF)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.011	-		µg/L	0.99940		101	65-135			
Boron	97.69	-		µg/L	100.00		97.7	65-135			
Vanadium	48.34	-		µg/L	49.980		96.7	85-115			
Chromium	48.56	-		µg/L	50.000		97.1	85-115			
Cobalt	19.78	-		µg/L	20.020		98.8	85-115			
Zinc	53.41	-		µg/L	50.000		107	75-125			
Arsenic	50.90	-		µg/L	50.000		102	85-115			
Selenium	52.10	-		µg/L	50.000		104	80-120			
Molybdenum	10.65	-		µg/L	10.002		107	85-115			
Cadmium	5.290	-		µg/L	5.0020		106	85-115			
Antimony	1.048	-		µg/L	0.99960		105	85-115			
Thallium	1.021	-		µg/L	1.0004		102	85-115			
Lead	10.34	-		µg/L	10.000		103	80-120			

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVG)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.041	-		µg/L	0.99940		104	65-135			
Boron	96.87	-		µg/L	100.00		96.9	65-135			
Vanadium	50.43	-		µg/L	49.980		101	85-115			
Chromium	48.53	-		µg/L	50.000		97.1	85-115			
Cobalt	19.60	-		µg/L	20.020		97.9	85-115			
Zinc	52.77	-		µg/L	50.000		106	75-125			
Arsenic	51.41	-		µg/L	50.000		103	85-115			
Selenium	52.66	-		µg/L	50.000		105	80-120			
Molybdenum	10.92	-		µg/L	10.002		109	85-115			
Cadmium	5.301	-		µg/L	5.0020		106	85-115			
Antimony	1.075	-		µg/L	0.99960		108	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.49	-		µg/L	10.000		105	80-120			

Calibration Check (6I20023-CCVH)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.041	-		µg/L	0.99940		104	65-135			
Boron	97.46	-		µg/L	100.00		97.5	65-135			
Vanadium	46.58	-		µg/L	49.980		93.2	85-115			
Chromium	47.81	-		µg/L	50.000		95.6	85-115			
Cobalt	19.30	-		µg/L	20.020		96.4	85-115			
Zinc	53.10	-		µg/L	50.000		106	75-125			
Arsenic	51.31	-		µg/L	50.000		103	85-115			
Selenium	52.16	-		µg/L	50.000		104	80-120			
Molybdenum	10.89	-		µg/L	10.002		109	85-115			
Cadmium	5.307	-		µg/L	5.0020		106	85-115			
Antimony	1.067	-		µg/L	0.99960		107	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.34	-		µg/L	10.000		103	80-120			

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVI)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.025	-		µg/L	0.99940		103	65-135			
Boron	97.40	-		µg/L	100.00		97.4	65-135			
Vanadium	50.22	-		µg/L	49.980		100	85-115			
Chromium	48.63	-		µg/L	50.000		97.3	85-115			
Cobalt	19.26	-		µg/L	20.020		96.2	85-115			
Zinc	52.74	-		µg/L	50.000		105	75-125			
Arsenic	50.94	-		µg/L	50.000		102	85-115			
Selenium	53.39	-		µg/L	50.000		107	80-120			
Molybdenum	10.86	-		µg/L	10.002		109	85-115			
Cadmium	5.312	-		µg/L	5.0020		106	85-115			
Antimony	1.093	-		µg/L	0.99960		109	85-115			
Thallium	1.026	-		µg/L	1.0004		103	85-115			
Lead	10.49	-		µg/L	10.000		105	80-120			

Initial Cal Blank (6I20023-ICB1)

Prepared & Analyzed: 19-Sep-16

Beryllium	-0.0001	-		µg/L							U
Boron	1.05	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.002	-		µg/L							
Cobalt	0.001	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	-0.006	-		µg/L							U
Selenium	0.07	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.005	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.0003	-		µg/L							U

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Dragonflies Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:32
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Initial Cal Check (6I20023-ICV1)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.075	-		µg/L	0.99940		108	65-135			
Boron	103.0	-		µg/L	100.00		103	65-135			
Vanadium	53.02	-		µg/L	49.980		106	85-115			
Chromium	48.92	-		µg/L	50.000		97.8	85-115			
Cobalt	19.64	-		µg/L	20.020		98.1	85-115			
Zinc	52.55	-		µg/L	50.000		105	75-125			
Arsenic	51.24	-		µg/L	50.000		102	85-115			
Selenium	53.53	-		µg/L	50.000		107	80-120			
Molybdenum	10.49	-		µg/L	10.002		105	85-115			
Cadmium	5.160	-		µg/L	5.0020		103	85-115			
Antimony	1.045	-		µg/L	0.99960		105	85-115			
Thallium	0.996	-		µg/L	1.0004		99.6	85-115			
Lead	10.20	-		µg/L	10.000		102	80-120			

Batch 6I22006 - F608500

Cal Standard (6I22006-CAL1)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	0.08	-		µg/L	0.10000		82.8				
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Cal Standard (6I22006-CAL2)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	0.20	-		µg/L	0.20000		97.9				
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Cal Standard (6I22006-CAL3)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	0.95	-		µg/L	0.40000		238				
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Cal Standard (6I22006-CAL4)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	12.35	-		µg/L	12.500		98.8				
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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I22006 - F608500											
Cal Standard (6I22006-CAL5)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	24.78	-		µg/L	25.000		99.1				
Cal Standard (6I22006-CAL6)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	50.05	-		µg/L	50.000		100				
Cal Standard (6I22006-CAL7)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	123.7	-		µg/L	125.00		99.0				
Cal Standard (6I22006-CAL8)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	250.6	-		µg/L	250.00		100				
Cal Standard (6I22006-CAL9)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	500.0	-		µg/L	500.00		100				
Calibration Blank (6I22006-CCB1)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	0.01	-		µg/L							
Calibration Blank (6I22006-CCB2)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	0.004	-		µg/L							
Calibration Blank (6I22006-CCB3)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	0.005	-		µg/L							
Calibration Blank (6I22006-CCB4)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	0.01	-		µg/L							
Calibration Check (6I22006-CCV1)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	53.18	-		µg/L	50.000		106	75-125			

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: Pond 6 Dragonflies Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:32
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I22006 - F608500

Calibration Check (6I22006-CCV2)				Prepared: 19-Sep-16 Analyzed: 21-Sep-16							
Zinc	52.50	-		µg/L	50.000		105	75-125			
Calibration Check (6I22006-CCV3)				Prepared: 19-Sep-16 Analyzed: 21-Sep-16							
Zinc	52.94	-		µg/L	50.000		106	75-125			
Calibration Check (6I22006-CCV4)				Prepared: 19-Sep-16 Analyzed: 21-Sep-16							
Zinc	53.03	-		µg/L	50.000		106	75-125			
Initial Cal Blank (6I22006-ICB1)				Prepared: 19-Sep-16 Analyzed: 21-Sep-16							
Zinc	-0.008	-		µg/L							U
Initial Cal Check (6I22006-ICV1)				Prepared: 19-Sep-16 Analyzed: 21-Sep-16							
Zinc	53.11	-		µg/L	50.000		106	75-125			

Batch 6I30006 - F609460

Cal Standard (6I30006-CAL1)				Prepared & Analyzed: 29-Sep-16							
Mercury	0.5	-		ng/L	0.50100		98.9				
Cal Standard (6I30006-CAL2)				Prepared & Analyzed: 29-Sep-16							
Mercury	1.0	-		ng/L	1.0020		97.0				
Cal Standard (6I30006-CAL3)				Prepared & Analyzed: 29-Sep-16							
Mercury	5.2	-		ng/L	5.0100		104				
Cal Standard (6I30006-CAL4)				Prepared & Analyzed: 29-Sep-16							
Mercury	19.8	-		ng/L	20.040		98.9				

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 Project Number: Pond 6 Dragonflies
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I30006 - F609460											
Cal Standard (6I30006-CAL5)					Prepared & Analyzed: 29-Sep-16						
Mercury	40.3	-		ng/L	40.080		101				
Calibration Blank (6I30006-CCB1)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.06	-		ng/L							
Calibration Blank (6I30006-CCB2)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.002	-		ng/L							
Calibration Blank (6I30006-CCB3)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.08	-		ng/L							
Calibration Blank (6I30006-CCB4)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.03	-		ng/L							
Calibration Blank (6I30006-CCB5)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.07	-		ng/L							
Calibration Blank (6I30006-CCB6)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.1	-		ng/L							
Calibration Blank (6I30006-CCB7)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.2	-		ng/L							
Calibration Blank (6I30006-CCB8)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.08	-		ng/L							
Calibration Blank (6I30006-CCB9)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.2	-		ng/L							

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Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I30006 - F609460											
Calibration Blank (6I30006-CCBA) Prepared & Analyzed: 29-Sep-16											
Mercury	0.2	-		ng/L							
Calibration Check (6I30006-CCV1) Prepared & Analyzed: 29-Sep-16											
Mercury	5.3	-		ng/L	5.0000		105	77-123			
Calibration Check (6I30006-CCV2) Prepared & Analyzed: 29-Sep-16											
Mercury	5.3	-		ng/L	5.0000		106	77-123			
Calibration Check (6I30006-CCV3) Prepared & Analyzed: 29-Sep-16											
Mercury	5.4	-		ng/L	5.0000		107	77-123			
Calibration Check (6I30006-CCV4) Prepared & Analyzed: 29-Sep-16											
Mercury	5.3	-		ng/L	5.0000		107	77-123			
Calibration Check (6I30006-CCV5) Prepared & Analyzed: 29-Sep-16											
Mercury	5.2	-		ng/L	5.0000		104	77-123			
Calibration Check (6I30006-CCV6) Prepared & Analyzed: 29-Sep-16											
Mercury	5.7	-		ng/L	5.0000		113	77-123			
Calibration Check (6I30006-CCV7) Prepared & Analyzed: 29-Sep-16											
Mercury	5.5	-		ng/L	5.0000		109	77-123			
Calibration Check (6I30006-CCV8) Prepared & Analyzed: 29-Sep-16											
Mercury	5.4	-		ng/L	5.0000		108	77-123			
Calibration Check (6I30006-CCV9) Prepared & Analyzed: 29-Sep-16											
Mercury	5.6	-		ng/L	5.0000		111	77-123			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I30006 - F609460

Calibration Check (6I30006-CCVA)

Prepared & Analyzed: 29-Sep-16

Mercury	5.7	-		ng/L	5.0000		114	77-123			
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Instrument Blank (6I30006-IBL1)

Prepared & Analyzed: 29-Sep-16

Mercury	ND	-	0.2	ng/L							U
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Instrument Blank (6I30006-IBL2)

Prepared & Analyzed: 29-Sep-16

Mercury	ND	-	0.2	ng/L							U
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Instrument Blank (6I30006-IBL3)

Prepared & Analyzed: 29-Sep-16

Mercury	ND	-	0.2	ng/L							U
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Initial Cal Check (6I30006-ICV1)

Prepared & Analyzed: 29-Sep-16

Mercury	5.7	-		ng/L	5.0000		115	77-123			
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F608500-BLK1)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.150	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Molybdenum	ND	-	0.03	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

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Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F608500-BLK2)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.150	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Molybdenum	ND	-	0.03	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

LCS (F608500-BS1)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	3.932	-	0.080	mg/kg	4.0010		98.3	65-135			
Boron	46.59	-	2.40	mg/kg	50.000		93.2	65-135			
Vanadium	5.146	-	0.150	mg/kg	4.9990		103	85-115			
Chromium	4.94	-	0.15	mg/kg	5.0010		98.8	85-115			
Cobalt	3.98	-	0.05	mg/kg	4.0000		99.6	85-115			
Zinc	5.14	-	0.25	mg/kg	5.0020		103	75-125			
Arsenic	4.99	-	0.20	mg/kg	5.0010		99.8	85-115			
Selenium	5.02	-	0.30	mg/kg	5.0020		100	80-120			
Molybdenum	5.25	-	0.03	mg/kg	5.0000		105	85-115			
Cadmium	4.057	-	0.010	mg/kg	4.0030		101	85-115			
Antimony	4.218	-	0.025	mg/kg	3.9990		105	85-115			
Thallium	4.214	-	0.002	mg/kg	3.9980		105	80-120			
Lead	5.306	-	0.020	mg/kg	5.0010		106	80-120			

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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS Dup (F608500-BSD1)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	4.047	-	0.080	mg/kg	4.0010		101	65-135	2.89	20	
Boron	48.28	-	2.40	mg/kg	50.000		96.6	65-135	3.55	20	
Vanadium	5.285	-	0.150	mg/kg	4.9990		106	85-115	2.66	20	
Chromium	5.09	-	0.15	mg/kg	5.0010		102	85-115	2.88	20	
Cobalt	4.09	-	0.05	mg/kg	4.0000		102	85-115	2.59	20	
Zinc	5.24	-	0.25	mg/kg	5.0020		105	75-125	2.07	20	
Arsenic	5.06	-	0.20	mg/kg	5.0010		101	85-115	1.27	20	
Selenium	5.01	-	0.30	mg/kg	5.0020		100	80-120	0.123	20	
Molybdenum	5.38	-	0.03	mg/kg	5.0000		108	85-115	2.41	20	
Cadmium	4.143	-	0.010	mg/kg	4.0030		104	85-115	2.09	20	
Antimony	4.243	-	0.025	mg/kg	3.9990		106	85-115	0.607	20	
Thallium	4.312	-	0.002	mg/kg	3.9980		108	80-120	2.28	20	
Lead	5.435	-	0.020	mg/kg	5.0010		109	80-120	2.40	20	

Matrix Spike (F608500-MS1)

Source: 1608277-02

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	3.376	-	0.066	mg/kg	3.3001	ND	102	60-140			
Boron	40.69	-	1.98	mg/kg	41.241	0.50	97.5	60-140			
Vanadium	4.744	-	0.124	mg/kg	4.1232	0.383	106	75-125			
Chromium	4.16	-	0.12	mg/kg	4.1249	0.04	99.9	75-125			
Cobalt	4.09	-	0.04	mg/kg	3.2992	0.64	105	75-125			
Arsenic	4.69	-	0.16	mg/kg	4.1249	0.27	107	80-120			
Selenium	6.27	-	0.25	mg/kg	4.1257	1.67	111	65-135			
Molybdenum	5.07	-	0.02	mg/kg	4.1241	0.51	110	75-125			
Cadmium	5.548	-	0.008	mg/kg	3.3017	1.975	108	75-125			
Antimony	3.559	-	0.021	mg/kg	3.2984	0.014	107	80-120			
Thallium	3.452	-	0.002	mg/kg	3.2976	0.004	105	80-120			
Lead	4.399	-	0.016	mg/kg	4.1249	0.035	106	75-125			

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Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F608500-MS2)		Source: 1608277-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16						
Beryllium	3.679	-	0.074	mg/kg	3.6787	ND	100	60-140			
Boron	44.59	-	2.21	mg/kg	45.973	1.01	94.8	60-140			
Vanadium	5.264	-	0.138	mg/kg	4.5964	1.293	86.4	75-125			
Chromium	4.53	-	0.14	mg/kg	4.5982	ND	98.6	75-125			
Cobalt	4.49	-	0.05	mg/kg	3.6778	0.92	97.0	75-125			
Zinc	26.61	-	0.23	mg/kg	4.5991	21.64	108	65-135			
Arsenic	4.67	-	0.18	mg/kg	4.5982	0.06	100	80-120			
Selenium	5.53	-	0.28	mg/kg	4.5991	0.97	99.1	65-135			
Molybdenum	4.86	-	0.03	mg/kg	4.5973	0.13	103	75-125			
Cadmium	4.221	-	0.009	mg/kg	3.6806	0.588	98.7	75-125			
Antimony	3.836	-	0.023	mg/kg	3.6769	ND	104	80-120			
Thallium	3.864	-	0.002	mg/kg	3.6760	0.002	105	80-120			
Lead	4.923	-	0.018	mg/kg	4.5982	0.038	106	75-125			

Matrix Spike (F608500-MS3)		Source: 1608277-02			Prepared: 17-Sep-16 Analyzed: 20-Sep-16						
Beryllium	0.835	-	0.059	mg/kg	0.91723	ND	91.1	60-140			AS
Boron	61.99	-	1.76	mg/kg	73.378	0.50	83.8	60-140			AS
Vanadium	16.27	-	0.110	mg/kg	18.345	0.383	86.6	75-125			AS
Chromium	16.54	-	0.11	mg/kg	18.345	0.04	90.0	75-125			AS
Cobalt	8.98	-	0.04	mg/kg	9.1723	0.64	90.9	75-125			AS
Arsenic	18.33	-	0.15	mg/kg	18.345	0.27	98.4	80-120			AS
Selenium	20.18	-	0.22	mg/kg	18.345	1.67	101	65-135			AS
Molybdenum	9.13	-	0.02	mg/kg	9.1723	0.51	93.9	75-125			AS
Cadmium	3.693	-	0.007	mg/kg	1.8345	1.975	93.6	75-125			AS
Antimony	0.851	-	0.018	mg/kg	0.91723	0.014	91.3	80-120			AS
Thallium	0.848	-	0.002	mg/kg	0.91723	0.004	92.0	80-120			AS
Lead	4.294	-	0.015	mg/kg	4.5861	0.035	92.9	75-125			AS

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Project Number: Pond 6 Dragonflies
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F608500-MS4)		Source: 1608277-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16						
Beryllium	1.076	-	0.076	mg/kg	1.1896	ND	90.4	60-140			AS
Boron	80.81	-	2.28	mg/kg	95.166	1.01	83.8	60-140			AS
Vanadium	23.76	-	0.143	mg/kg	23.791	1.293	94.4	75-125			AS
Chromium	21.91	-	0.14	mg/kg	23.791	ND	92.1	75-125			AS
Cobalt	12.02	-	0.05	mg/kg	11.896	0.92	93.3	75-125			AS
Zinc	78.98	-	0.24	mg/kg	59.478	21.64	96.4	65-135			AS
Arsenic	22.48	-	0.19	mg/kg	23.791	0.06	94.2	80-120			AS
Selenium	23.37	-	0.29	mg/kg	23.791	0.97	94.2	65-135			AS
Molybdenum	11.67	-	0.03	mg/kg	11.896	0.13	97.0	75-125			AS
Cadmium	2.926	-	0.010	mg/kg	2.3791	0.588	98.3	75-125			AS
Antimony	1.088	-	0.024	mg/kg	1.1896	ND	91.4	80-120			AS
Thallium	1.142	-	0.002	mg/kg	1.1896	0.002	95.8	80-120			AS
Lead	5.761	-	0.019	mg/kg	5.9478	0.038	96.2	75-125			AS

Matrix Spike (F608500-MS5)		Source: 1608277-02RE1			Prepared: 17-Sep-16 Analyzed: 21-Sep-16						
Zinc	291.2	-	1.03	mg/kg	4.1257	286.1	124	65-135			QM-05

Matrix Spike (F608500-MS6)		Source: 1608277-02RE1			Prepared: 17-Sep-16 Analyzed: 21-Sep-16						
Zinc	536.2	-	0.92	mg/kg	183.45	286.1	136	65-135			AS, QM-05

Matrix Spike Dup (F608500-MSD1)		Source: 1608277-02			Prepared: 17-Sep-16 Analyzed: 20-Sep-16						
Beryllium	3.966	-	0.079	mg/kg	3.9756	ND	99.7	60-140	2.51	20	
Boron	47.75	-	2.38	mg/kg	49.682	0.50	95.1	60-140	2.44	20	
Vanadium	5.401	-	0.149	mg/kg	4.9672	0.383	101	75-125	4.60	20	
Chromium	5.07	-	0.15	mg/kg	4.9692	0.04	101	75-125	1.46	20	
Cobalt	4.67	-	0.05	mg/kg	3.9746	0.64	101	75-125	3.11	20	
Arsenic	5.41	-	0.20	mg/kg	4.9692	0.27	103	80-120	3.52	20	
Selenium	6.56	-	0.30	mg/kg	4.9702	1.67	98.4	65-135	12.3	20	
Molybdenum	5.70	-	0.03	mg/kg	4.9682	0.51	105	75-125	5.55	20	
Cadmium	5.945	-	0.010	mg/kg	3.9775	1.975	99.8	75-125	8.06	20	
Antimony	4.208	-	0.025	mg/kg	3.9736	0.014	106	80-120	1.82	20	
Thallium	4.202	-	0.002	mg/kg	3.9726	0.004	106	80-120	1.06	20	
Lead	5.322	-	0.020	mg/kg	4.9692	0.035	106	75-125	0.577	20	

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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F608500-MSD2)	Source: 1608277-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	4.064	-	0.080	mg/kg	3.9803	ND	102	60-140	2.09	20	
Boron	49.07	-	2.39	mg/kg	49.741	1.01	96.6	60-140	1.89	20	
Vanadium	6.545	-	0.149	mg/kg	4.9731	1.293	106	75-125	20.0	20	
Chromium	5.22	-	0.15	mg/kg	4.9751	ND	105	75-125	6.16	20	
Cobalt	5.11	-	0.05	mg/kg	3.9793	0.92	105	75-125	8.06	20	
Zinc	27.86	-	0.25	mg/kg	4.9761	21.64	125	65-135	14.5	20	
Arsenic	5.31	-	0.20	mg/kg	4.9751	0.06	105	80-120	5.05	20	
Selenium	5.85	-	0.30	mg/kg	4.9761	0.97	98.0	65-135	1.10	20	
Molybdenum	5.61	-	0.03	mg/kg	4.9741	0.13	110	75-125	6.89	20	
Cadmium	4.889	-	0.010	mg/kg	3.9823	0.588	108	75-125	8.98	20	
Antimony	4.380	-	0.025	mg/kg	3.9783	ND	110	80-120	5.39	20	
Thallium	4.317	-	0.002	mg/kg	3.9773	0.002	108	80-120	3.20	20	
Lead	5.531	-	0.020	mg/kg	4.9751	0.038	110	75-125	3.84	20	

Matrix Spike Dup (F608500-MSD3)	Source: 1608277-02			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	0.889	-	0.059	mg/kg	0.91723	ND	97.0	60-140	6.28	20	AS
Boron	65.48	-	1.76	mg/kg	73.378	0.50	88.6	60-140	5.52	20	AS
Vanadium	18.12	-	0.110	mg/kg	18.345	0.383	96.7	75-125	11.0	20	AS
Chromium	17.46	-	0.11	mg/kg	18.345	0.04	95.0	75-125	5.42	20	AS
Cobalt	9.45	-	0.04	mg/kg	9.1723	0.64	96.1	75-125	5.53	20	AS
Arsenic	19.15	-	0.15	mg/kg	18.345	0.27	103	80-120	4.43	20	AS
Selenium	20.83	-	0.22	mg/kg	18.345	1.67	104	65-135	3.48	20	AS
Molybdenum	9.66	-	0.02	mg/kg	9.1723	0.51	99.7	75-125	5.98	20	AS
Cadmium	3.858	-	0.007	mg/kg	1.8345	1.975	103	75-125	9.18	20	AS
Antimony	0.887	-	0.018	mg/kg	0.91723	0.014	95.2	80-120	4.18	20	AS
Thallium	0.901	-	0.002	mg/kg	0.91723	0.004	97.8	80-120	6.13	20	AS
Lead	4.559	-	0.015	mg/kg	4.5861	0.035	98.6	75-125	6.03	20	AS

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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F608500-MSD4)		Source: 1608277-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16						
Beryllium	1.072	-	0.076	mg/kg	1.1896	ND	90.1	60-140	0.355	20	AS
Boron	81.25	-	2.28	mg/kg	95.166	1.01	84.3	60-140	0.558	20	AS
Vanadium	23.17	-	0.143	mg/kg	23.791	1.293	92.0	75-125	2.67	20	AS
Chromium	21.56	-	0.14	mg/kg	23.791	ND	90.6	75-125	1.59	20	AS
Cobalt	11.80	-	0.05	mg/kg	11.896	0.92	91.5	75-125	2.00	20	AS
Zinc	77.30	-	0.24	mg/kg	59.478	21.64	93.6	65-135	2.96	20	AS
Arsenic	21.97	-	0.19	mg/kg	23.791	0.06	92.1	80-120	2.32	20	AS
Selenium	23.07	-	0.29	mg/kg	23.791	0.97	92.9	65-135	1.34	20	AS
Molybdenum	11.53	-	0.03	mg/kg	11.896	0.13	95.8	75-125	1.20	20	AS
Cadmium	2.876	-	0.010	mg/kg	2.3791	0.588	96.2	75-125	2.18	20	AS
Antimony	1.088	-	0.024	mg/kg	1.1896	ND	91.5	80-120	0.0503	20	AS
Thallium	1.126	-	0.002	mg/kg	1.1896	0.002	94.6	80-120	1.34	20	AS
Lead	5.649	-	0.019	mg/kg	5.9478	0.038	94.3	75-125	1.99	20	AS

Matrix Spike Dup (F608500-MSD5)		Source: 1608277-02RE1			Prepared: 17-Sep-16 Analyzed: 21-Sep-16						
Zinc	254.8	-	1.24	mg/kg	4.9702	286.1	-629	65-135	-298	20	QM-05, QR-08

Matrix Spike Dup (F608500-MSD6)		Source: 1608277-02RE1			Prepared: 17-Sep-16 Analyzed: 21-Sep-16						
Zinc	528.3	-	0.92	mg/kg	183.45	286.1	132	65-135	3.21	20	AS, QM-05

Batch F609581 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F609581-BLK1)					Prepared: 27-Sep-16 Analyzed: 29-Sep-16						
Mercury	ND	-	3.0	ng/g							U

Blank (F609581-BLK2)					Prepared: 27-Sep-16 Analyzed: 29-Sep-16						
Mercury	ND	-	3.0	ng/g							U

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Dragonflies
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F609581 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS (F609581-BS1)					Prepared: 27-Sep-16 Analyzed: 29-Sep-16						
Mercury	294.0	-	75.0	ng/g	300.00		98.0	75-125			
LCS Dup (F609581-BSD1)					Prepared: 27-Sep-16 Analyzed: 29-Sep-16						
Mercury	298.6	-	75.0	ng/g	300.00		99.5	75-125	1.56	24	
Matrix Spike (F609581-MS1)					Source: 1608277-02		Prepared: 27-Sep-16 Analyzed: 29-Sep-16				
Mercury	302.7	-	61.9	ng/g	247.44	31.6	110	71-125			
Matrix Spike (F609581-MS2)					Source: 1608277-01		Prepared: 27-Sep-16 Analyzed: 29-Sep-16				
Mercury	304.5	-	69.0	ng/g	275.84	40.7	95.7	71-125			
Matrix Spike Dup (F609581-MSD1)					Source: 1608277-02		Prepared: 27-Sep-16 Analyzed: 29-Sep-16				
Mercury	327.9	-	74.5	ng/g	298.09	31.6	99.4	71-125	9.71	24	
Matrix Spike Dup (F609581-MSD2)					Source: 1608277-01		Prepared: 27-Sep-16 Analyzed: 29-Sep-16				
Mercury	354.3	-	74.6	ng/g	298.45	40.7	105	71-125	9.39	24	

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: Pond 6 Dragonflies
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:32

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-08 The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
- QM-13 The analytical spike recovery was outside control limits for the AS and/or ASD. The batch was accepted based on MS/MSD and LCS/LCSD recoveries within control limits.
- QM-05 The spike recovery was outside acceptance limits for the MS/MSD and or AS/ASD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

30 September 2016

Jeff Levensgood PhD, CWB
University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign, ILLINOIS 61820

RE: Trace Metals In Snails, Fish Liver And Fillet 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Patrick Garcia-Strickland". The signature is written in a cursive style with a large initial "P".

Patrick Garcia-Strickland
Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levengood PhD, CWB

Reported:
30-Sep-16 15:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
72L Long Pond Middle BEN 2	1608277-01	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
73L Long Pond Middle BEN 3	1608277-02	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
88L Long Pond South BEN 3	1608277-03	Tissue	08-Aug-16 00:00	09-Aug-16 10:00

Eurofins Frontier Global Sciences, Inc.

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB**Reported:**
30-Sep-16 15:30

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 8/9/2016 10:00:00 AM . The samples were received intact, on-ice within a sealed cooler at 3.3 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

Trace metals preparation and analysis was performed by inductively coupled plasma mass spectrometry (ICP-MS) in accordance with EFGS-054, a modified EPA 1638.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.

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Patrick Garcia-Strickland, Laboratory Director

Sample Receipt Checklist

 EFGS Work Order: 1608277

 Client: University of Illinois

Date & Time Received: _____

 Date Labeled: 8/16 Labeled By: WF

 Project: 618/16 1000

 Received By: CSF

 Label Verified By: CSF

 # of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

 Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>W</u>	
Custody seals signed:	<u>N</u>	

TID: <u>5225</u>	CF: <u>-0.1 °C</u>	Date/time: <u>8/9/16 1000</u>	By: <u>CSF</u>
Cooler 1: <u>3.4 °C</u>	w/ CF: <u>3.3 °C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: _____ °C	w/ CF: _____ °C	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>N</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>N/A</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):



Frontier Global Sciences

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

Page 2 of 2

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
Phone: 425-686-1996
Fax: 425-686-3096
info@FrontierGS.com
http://www.FrontierGS.com

Form containing client information (University of Illinois), contact details, sample list (12 items), analysis requested (As, B, Be, Cd, Co, Cr, Hg, Pb, Mo, Sb, Se, Ti, V, Zn), and laboratory use only section with signatures and dates.

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

72L Long Pond Middle BEN 2
1608277-01

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.19	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Beryllium	ND	-	0.076	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.28	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.588	-	0.010	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.92	-	0.05	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.14	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	40.7	-	2.9	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.13	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.038	-	0.019	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.024	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.97	-	0.29	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.002	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	1.29	-	0.143	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	21.5	-	0.24	mg/kg	5	F608500	17-Sep-16	6I22006	21-Sep-16	FGS-054	

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

73L Long Pond Middle BEN 3
1608277-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	0.27	-	0.15	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.059	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.76	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	1.98	-	0.007	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.64	-	0.04	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	ND	-	0.11	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	31.6	-	2.2	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.51	-	0.02	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.035	-	0.015	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.018	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	1.67	-	0.22	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.004	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.383	-	0.110	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	286	-	0.92	mg/kg	25	F608500	17-Sep-16	6I22006	21-Sep-16	FGS-054	

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

88L Long Pond South BEN 3
1608277-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	ND	-	0.14	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Beryllium	ND	-	0.055	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.64	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	ND	-	0.007	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cobalt	ND	-	0.03	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Chromium	ND	-	0.10	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Mercury	4.5	-	2.1	ng/g	20	F609581	27-Sep-16	6I30006	29-Sep-16	EPA 1631B	
Molybdenum	0.04	-	0.02	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.015	-	0.014	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.017	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.62	-	0.21	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	ND	-	0.002	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	ND	-	0.103	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Zinc	19.2	-	0.17	mg/kg	5	F608500	17-Sep-16	6I20023	20-Sep-16	FGS-054	

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL1)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.029	-		µg/L	0.030000		95.7				
Boron	1.39	-		µg/L	1.5000		92.5				
Vanadium	0.050	-		µg/L	0.050000		100				
Chromium	0.06	-		µg/L	0.050000		128				
Cobalt	0.06	-		µg/L	0.050000		110				
Arsenic	0.07	-		µg/L	0.075000		88.7				
Selenium	0.29	-		µg/L	0.30000		98.3				
Cadmium	0.010	-		µg/L	0.010000		98.3				
Antimony	0.010	-		µg/L	0.010000		103				
Thallium	0.003	-		µg/L	0.0025000		111				
Lead	0.023	-		µg/L	0.020000		114				

Cal Standard (6I20023-CAL2)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.065	-		µg/L	0.060000		108				
Boron	2.85	-		µg/L	3.0000		94.9				
Vanadium	0.112	-		µg/L	0.10000		112				
Chromium	0.11	-		µg/L	0.10000		115				
Cobalt	0.11	-		µg/L	0.10000		108				
Zinc	0.14	-		µg/L	0.20000		67.9				
Arsenic	0.15	-		µg/L	0.15000		100				
Selenium	0.51	-		µg/L	0.60000		84.9				
Cadmium	0.020	-		µg/L	0.020000		99.9				
Antimony	0.022	-		µg/L	0.020000		110				
Thallium	0.006	-		µg/L	0.0050000		113				
Lead	0.045	-		µg/L	0.040000		113				

Cal Standard (6I20023-CAL3)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.125	-		µg/L	0.12000		104				
Boron	5.81	-		µg/L	6.0000		96.8				
Vanadium	0.211	-		µg/L	0.20000		105				
Chromium	0.24	-		µg/L	0.20000		118				
Cobalt	0.21	-		µg/L	0.20000		106				
Zinc	0.96	-		µg/L	0.40000		240				
Arsenic	0.29	-		µg/L	0.30000		98.0				

Eurofins Frontier Global Sciences, Inc.

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 fish (livers)
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL3)

Prepared & Analyzed: 19-Sep-16

Selenium	1.18	-		µg/L	1.2000		98.4				
Cadmium	0.041	-		µg/L	0.040000		102				
Antimony	0.043	-		µg/L	0.040000		106				
Thallium	0.012	-		µg/L	0.010000		120				
Lead	0.091	-		µg/L	0.080000		114				

Cal Standard (6I20023-CAL4)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.247	-		µg/L	0.25000		99.0				
Boron	19.43	-		µg/L	20.000		97.1				
Vanadium	4.988	-		µg/L	5.0000		99.8				
Chromium	4.99	-		µg/L	5.0000		99.7				
Cobalt	2.53	-		µg/L	2.5000		101				
Zinc	12.71	-		µg/L	12.500		102				
Arsenic	4.97	-		µg/L	5.0000		99.4				
Selenium	4.88	-		µg/L	5.0000		97.5				
Cadmium	0.512	-		µg/L	0.50000		102				
Antimony	0.255	-		µg/L	0.25000		102				
Thallium	0.261	-		µg/L	0.25000		104				
Lead	1.323	-		µg/L	1.2500		106				

Cal Standard (6I20023-CAL5)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.491	-		µg/L	0.50000		98.1				
Boron	37.65	-		µg/L	40.000		94.1				
Vanadium	9.840	-		µg/L	10.000		98.4				
Chromium	9.91	-		µg/L	10.000		99.1				
Cobalt	4.96	-		µg/L	5.0000		99.3				
Zinc	24.71	-		µg/L	25.000		98.9				
Arsenic	9.76	-		µg/L	10.000		97.6				
Selenium	9.59	-		µg/L	10.000		95.9				
Cadmium	0.980	-		µg/L	1.0000		98.0				
Antimony	0.512	-		µg/L	0.50000		102				
Thallium	0.526	-		µg/L	0.50000		105				
Lead	2.690	-		µg/L	2.5000		108				

Eurofins Frontier Global Sciences, Inc.



Patrick Garcia-Strickland, Laboratory Director

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL6)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.998	-		µg/L	1.0000		99.8				
Boron	77.20	-		µg/L	80.000		96.5				
Vanadium	19.80	-		µg/L	20.000		99.0				
Chromium	19.74	-		µg/L	20.000		98.7				
Cobalt	9.93	-		µg/L	10.000		99.3				
Zinc	50.71	-		µg/L	50.000		101				
Arsenic	19.59	-		µg/L	20.000		97.9				
Selenium	19.91	-		µg/L	20.000		99.6				
Cadmium	1.963	-		µg/L	2.0000		98.2				
Antimony	1.008	-		µg/L	1.0000		101				
Thallium	1.028	-		µg/L	1.0000		103				
Lead	5.237	-		µg/L	5.0000		105				

Cal Standard (6I20023-CAL7)

Prepared & Analyzed: 19-Sep-16

Beryllium	2.453	-		µg/L	2.5000		98.1				
Boron	191.8	-		µg/L	200.00		95.9				
Vanadium	49.20	-		µg/L	50.000		98.4				
Chromium	48.53	-		µg/L	50.000		97.1				
Cobalt	24.27	-		µg/L	25.000		97.1				
Zinc	122.1	-		µg/L	125.00		97.7				
Arsenic	48.44	-		µg/L	50.000		96.9				
Selenium	48.76	-		µg/L	50.000		97.5				
Cadmium	4.951	-		µg/L	5.0000		99.0				
Antimony	2.508	-		µg/L	2.5000		100				
Thallium	2.549	-		µg/L	2.5000		102				
Lead	12.76	-		µg/L	12.500		102				

Cal Standard (6I20023-CAL8)

Prepared & Analyzed: 19-Sep-16

Beryllium	5.060	-		µg/L	5.0000		101				
Boron	390.2	-		µg/L	400.00		97.6				
Vanadium	99.25	-		µg/L	100.00		99.3				
Chromium	98.55	-		µg/L	100.00		98.6				
Cobalt	49.21	-		µg/L	50.000		98.4				
Zinc	247.5	-		µg/L	250.00		99.0				

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL8)

Prepared & Analyzed: 19-Sep-16

Arsenic	98.60	-		µg/L	100.00		98.6				
Selenium	96.93	-		µg/L	100.00		96.9				
Cadmium	9.975	-		µg/L	10.000		99.7				
Antimony	5.037	-		µg/L	5.0000		101				
Thallium	5.079	-		µg/L	5.0000		102				
Lead	25.78	-		µg/L	25.000		103				

Cal Standard (6I20023-CAL9)

Prepared & Analyzed: 19-Sep-16

Beryllium	9.983	-		µg/L	10.000		99.8				
Boron	807.3	-		µg/L	800.00		101				
Vanadium	200.6	-		µg/L	200.00		100				
Chromium	201.1	-		µg/L	200.00		101				
Cobalt	100.6	-		µg/L	100.00		101				
Zinc	501.9	-		µg/L	500.00		100				
Arsenic	201.1	-		µg/L	200.00		101				
Selenium	201.9	-		µg/L	200.00		101				
Cadmium	20.03	-		µg/L	20.000		100				
Antimony	9.978	-		µg/L	10.000		99.8				
Thallium	9.944	-		µg/L	10.000		99.4				
Lead	49.51	-		µg/L	50.000		99.0				

Cal Standard (6I20023-CALA)

Prepared & Analyzed: 19-Sep-16

Molybdenum	0.03	-		µg/L	0.029910		97.1				
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Cal Standard (6I20023-CALB)

Prepared & Analyzed: 19-Sep-16

Molybdenum	0.06	-		µg/L	0.059820		96.3				
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Cal Standard (6I20023-CALC)

Prepared & Analyzed: 19-Sep-16

Molybdenum	0.12	-		µg/L	0.11964		98.2				
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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CALD)						Prepared & Analyzed: 19-Sep-16					
Molybdenum	2.56	-		µg/L	2.4925		103				
Cal Standard (6I20023-CALE)						Prepared & Analyzed: 19-Sep-16					
Molybdenum	5.03	-		µg/L	4.9850		101				
Cal Standard (6I20023-CALF)						Prepared & Analyzed: 19-Sep-16					
Molybdenum	10.12	-		µg/L	9.9700		102				
Cal Standard (6I20023-CALG)						Prepared & Analyzed: 19-Sep-16					
Molybdenum	24.67	-		µg/L	24.925		99.0				
Cal Standard (6I20023-CALH)						Prepared & Analyzed: 19-Sep-16					
Molybdenum	50.61	-		µg/L	49.850		102				
Cal Standard (6I20023-CALI)						Prepared & Analyzed: 19-Sep-16					
Molybdenum	99.76	-		µg/L	99.700		100				
Calibration Blank (6I20023-CCB1)						Prepared & Analyzed: 19-Sep-16					
Beryllium	0.0005	-		µg/L							
Boron	1.03	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	0.03	-		µg/L							
Selenium	-0.008	-		µg/L							U
Molybdenum	0.05	-		µg/L							
Cadmium	0.026	-		µg/L							
Antimony	0.004	-		µg/L							
Thallium	0.0007	-		µg/L							
Lead	-0.00008	-		µg/L							U

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Project Manager: Jeff Levensgood PhD, CWB

Reported:
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB2)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.0008	-		µg/L							
Boron	1.05	-		µg/L							
Vanadium	0.0008	-		µg/L							
Chromium	0.008	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.04	-		µg/L							U
Arsenic	0.008	-		µg/L							
Selenium	0.17	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.001	-		µg/L							
Antimony	0.004	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.0003	-		µg/L							U

Calibration Blank (6I20023-CCB3)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.0009	-		µg/L							
Boron	1.25	-		µg/L							
Vanadium	0.005	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.10	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.002	-		µg/L							
Antimony	0.005	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.00005	-		µg/L							U

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: pond 6 fish (livers) Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:30
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB4)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	1.07	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.009	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.18	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0008	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.0003	-		µg/L							
Lead	-0.0001	-		µg/L							U

Calibration Blank (6I20023-CCB5)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	1.54	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.005	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.009	-		µg/L							
Selenium	0.09	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0003	-		µg/L							
Antimony	0.007	-		µg/L							
Thallium	0.0003	-		µg/L							
Lead	0.00009	-		µg/L							

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: pond 6 fish (livers) Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:30
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB6)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0007	-		µg/L							
Boron	1.66	-		µg/L							
Vanadium	0.004	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.02	-		µg/L							
Selenium	0.07	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0004	-		µg/L							U
Antimony	0.002	-		µg/L							
Thallium	0.0002	-		µg/L							
Lead	0.0002	-		µg/L							

Calibration Blank (6I20023-CCB7)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	1.38	-		µg/L							
Vanadium	0.010	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.06	-		µg/L							U
Arsenic	0.02	-		µg/L							
Selenium	0.28	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0007	-		µg/L							
Antimony	0.110	-		µg/L							
Thallium	0.003	-		µg/L							
Lead	0.0006	-		µg/L							

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University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB8)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	1.06	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.07	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.008	-		µg/L							
Thallium	0.0005	-		µg/L							
Lead	0.000	-		µg/L							U

Calibration Blank (6I20023-CCB9)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0004	-		µg/L							
Boron	0.81	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.02	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.10	-		µg/L							U
Arsenic	0.007	-		µg/L							
Selenium	-0.01	-		µg/L							U
Molybdenum	0.02	-		µg/L							
Cadmium	0.0006	-		µg/L							
Antimony	0.006	-		µg/L							
Thallium	0.0006	-		µg/L							
Lead	0.0002	-		µg/L							

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBA)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.001	-		µg/L							
Boron	1.18	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	-0.002	-		µg/L							U
Selenium	0.18	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0002	-		µg/L							U
Antimony	0.005	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.00001	-		µg/L							U

Calibration Blank (6I20023-CCBB)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	0.98	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.009	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	-0.02	-		µg/L							U
Molybdenum	0.05	-		µg/L							
Cadmium	-0.003	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0002	-		µg/L							

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Champaign ILLINOIS, 61820

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Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBC)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0004	-		µg/L							
Boron	0.79	-		µg/L							
Vanadium	0.005	-		µg/L							
Chromium	0.02	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.003	-		µg/L							
Selenium	0.16	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.0007	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBD)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.001	-		µg/L							
Boron	1.14	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.08	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.001	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0003	-		µg/L							

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University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: pond 6 fish (livers) Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:30
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBE) Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.001	-		µg/L							
Boron	1.03	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.008	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.006	-		µg/L							
Selenium	0.03	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBF) Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	0.84	-		µg/L							
Vanadium	0.004	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.13	-		µg/L							U
Arsenic	-0.02	-		µg/L							U
Selenium	0.07	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.002	-		µg/L							U
Antimony	0.00005	-		µg/L							
Thallium	0.002	-		µg/L							
Lead	-0.00009	-		µg/L							U

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30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBG)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0004	-		µg/L							
Boron	0.67	-		µg/L							
Vanadium	0.0007	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.10	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.10	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0007	-		µg/L							
Antimony	0.0003	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBH)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	0.67	-		µg/L							
Vanadium	0.0003	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	-0.01	-		µg/L							U
Selenium	0.06	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.003	-		µg/L							U
Antimony	0.0001	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.000	-		µg/L							U

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Patrick Garcia-Strickland, Laboratory Director



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: pond 6 fish (livers) Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:30
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBI)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	0.70	-		µg/L							
Vanadium	0.001	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	0.0005	-		µg/L							
Selenium	0.05	-		µg/L							
Molybdenum	0.02	-		µg/L							
Cadmium	-0.002	-		µg/L							U
Antimony	-0.00009	-		µg/L							U
Thallium	0.001	-		µg/L							
Lead	0.00007	-		µg/L							

Calibration Check (6I20023-CCV1)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.062	-		µg/L	0.99940		106	65-135			
Boron	102.9	-		µg/L	100.00		103	65-135			
Vanadium	51.32	-		µg/L	49.980		103	85-115			
Chromium	49.22	-		µg/L	50.000		98.4	85-115			
Cobalt	19.79	-		µg/L	20.020		98.8	85-115			
Zinc	54.31	-		µg/L	50.000		109	75-125			
Arsenic	51.37	-		µg/L	50.000		103	85-115			
Selenium	53.41	-		µg/L	50.000		107	80-120			
Molybdenum	10.47	-		µg/L	10.002		105	85-115			
Cadmium	5.187	-		µg/L	5.0020		104	85-115			
Antimony	1.045	-		µg/L	0.99960		105	85-115			
Thallium	1.001	-		µg/L	1.0004		100	85-115			
Lead	10.16	-		µg/L	10.000		102	80-120			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV2)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.101	-		µg/L	0.99940		110	65-135			
Boron	104.5	-		µg/L	100.00		104	65-135			
Vanadium	50.33	-		µg/L	49.980		101	85-115			
Chromium	48.15	-		µg/L	50.000		96.3	85-115			
Cobalt	19.58	-		µg/L	20.020		97.8	85-115			
Zinc	52.34	-		µg/L	50.000		105	75-125			
Arsenic	51.35	-		µg/L	50.000		103	85-115			
Selenium	53.64	-		µg/L	50.000		107	80-120			
Molybdenum	10.53	-		µg/L	10.002		105	85-115			
Cadmium	5.178	-		µg/L	5.0020		104	85-115			
Antimony	1.055	-		µg/L	0.99960		106	85-115			
Thallium	1.020	-		µg/L	1.0004		102	85-115			
Lead	10.38	-		µg/L	10.000		104	80-120			

Calibration Check (6I20023-CCV3)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.074	-		µg/L	0.99940		107	65-135			
Boron	104.8	-		µg/L	100.00		105	65-135			
Vanadium	47.96	-		µg/L	49.980		96.0	85-115			
Chromium	47.66	-		µg/L	50.000		95.3	85-115			
Cobalt	19.47	-		µg/L	20.020		97.2	85-115			
Zinc	51.97	-		µg/L	50.000		104	75-125			
Arsenic	50.76	-		µg/L	50.000		102	85-115			
Selenium	53.08	-		µg/L	50.000		106	80-120			
Molybdenum	10.54	-		µg/L	10.002		105	85-115			
Cadmium	5.179	-		µg/L	5.0020		104	85-115			
Antimony	1.092	-		µg/L	0.99960		109	85-115			
Thallium	0.999	-		µg/L	1.0004		99.9	85-115			
Lead	10.28	-		µg/L	10.000		103	80-120			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV4)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.086	-		µg/L	0.99940		109	65-135			
Boron	102.1	-		µg/L	100.00		102	65-135			
Vanadium	50.07	-		µg/L	49.980		100	85-115			
Chromium	47.98	-		µg/L	50.000		96.0	85-115			
Cobalt	19.47	-		µg/L	20.020		97.3	85-115			
Zinc	51.97	-		µg/L	50.000		104	75-125			
Arsenic	50.91	-		µg/L	50.000		102	85-115			
Selenium	52.58	-		µg/L	50.000		105	80-120			
Molybdenum	10.63	-		µg/L	10.002		106	85-115			
Cadmium	5.105	-		µg/L	5.0020		102	85-115			
Antimony	1.086	-		µg/L	0.99960		109	85-115			
Thallium	1.000	-		µg/L	1.0004		100	85-115			
Lead	10.16	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV5)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.084	-		µg/L	0.99940		108	65-135			
Boron	101.9	-		µg/L	100.00		102	65-135			
Vanadium	47.68	-		µg/L	49.980		95.4	85-115			
Chromium	48.49	-		µg/L	50.000		97.0	85-115			
Cobalt	19.56	-		µg/L	20.020		97.7	85-115			
Zinc	52.30	-		µg/L	50.000		105	75-125			
Arsenic	50.87	-		µg/L	50.000		102	85-115			
Selenium	53.96	-		µg/L	50.000		108	80-120			
Molybdenum	10.70	-		µg/L	10.002		107	85-115			
Cadmium	5.209	-		µg/L	5.0020		104	85-115			
Antimony	1.088	-		µg/L	0.99960		109	85-115			
Thallium	1.008	-		µg/L	1.0004		101	85-115			
Lead	10.21	-		µg/L	10.000		102	80-120			

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Patrick Garcia-Strickland, Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV6)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.054	-		µg/L	0.99940		105	65-135			
Boron	104.4	-		µg/L	100.00		104	65-135			
Vanadium	54.07	-		µg/L	49.980		108	85-115			
Chromium	48.13	-		µg/L	50.000		96.3	85-115			
Cobalt	19.63	-		µg/L	20.020		98.1	85-115			
Zinc	51.49	-		µg/L	50.000		103	75-125			
Arsenic	50.64	-		µg/L	50.000		101	85-115			
Selenium	52.33	-		µg/L	50.000		105	80-120			
Molybdenum	10.83	-		µg/L	10.002		108	85-115			
Cadmium	5.237	-		µg/L	5.0020		105	85-115			
Antimony	1.084	-		µg/L	0.99960		108	85-115			
Thallium	1.009	-		µg/L	1.0004		101	85-115			
Lead	10.24	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV7)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.109	-		µg/L	0.99940		111	65-135			
Boron	108.7	-		µg/L	100.00		109	65-135			
Vanadium	48.99	-		µg/L	49.980		98.0	85-115			
Chromium	49.06	-		µg/L	50.000		98.1	85-115			
Cobalt	19.50	-		µg/L	20.020		97.4	85-115			
Zinc	52.19	-		µg/L	50.000		104	75-125			
Arsenic	51.30	-		µg/L	50.000		103	85-115			
Selenium	54.05	-		µg/L	50.000		108	80-120			
Molybdenum	10.54	-		µg/L	10.002		105	85-115			
Cadmium	5.088	-		µg/L	5.0020		102	85-115			
Antimony	1.768	-		µg/L	0.99960		177	85-115			
Thallium	1.007	-		µg/L	1.0004		101	85-115			
Lead	9.994	-		µg/L	10.000		99.9	80-120			

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Patrick Garcia-Strickland, Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV8)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.036	-		µg/L	0.99940		104	65-135			
Boron	98.88	-		µg/L	100.00		98.9	65-135			
Vanadium	49.57	-		µg/L	49.980		99.2	85-115			
Chromium	49.19	-		µg/L	50.000		98.4	85-115			
Cobalt	19.60	-		µg/L	20.020		97.9	85-115			
Zinc	52.85	-		µg/L	50.000		106	75-125			
Arsenic	50.83	-		µg/L	50.000		102	85-115			
Selenium	52.64	-		µg/L	50.000		105	80-120			
Molybdenum	10.57	-		µg/L	10.002		106	85-115			
Cadmium	5.208	-		µg/L	5.0020		104	85-115			
Antimony	1.066	-		µg/L	0.99960		107	85-115			
Thallium	1.010	-		µg/L	1.0004		101	85-115			
Lead	10.21	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV9)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.036	-		µg/L	0.99940		104	65-135			
Boron	102.0	-		µg/L	100.00		102	65-135			
Vanadium	50.12	-		µg/L	49.980		100	85-115			
Chromium	48.34	-		µg/L	50.000		96.7	85-115			
Cobalt	19.76	-		µg/L	20.020		98.7	85-115			
Zinc	52.76	-		µg/L	50.000		106	75-125			
Arsenic	51.53	-		µg/L	50.000		103	85-115			
Selenium	53.64	-		µg/L	50.000		107	80-120			
Molybdenum	10.67	-		µg/L	10.002		107	85-115			
Cadmium	5.193	-		µg/L	5.0020		104	85-115			
Antimony	1.038	-		µg/L	0.99960		104	85-115			
Thallium	1.003	-		µg/L	1.0004		100	85-115			
Lead	10.13	-		µg/L	10.000		101	80-120			

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Patrick Garcia-Strickland, Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVA)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.042	-		µg/L	0.99940		104	65-135			
Boron	98.95	-		µg/L	100.00		99.0	65-135			
Vanadium	48.57	-		µg/L	49.980		97.2	85-115			
Chromium	49.00	-		µg/L	50.000		98.0	85-115			
Cobalt	19.67	-		µg/L	20.020		98.2	85-115			
Zinc	52.15	-		µg/L	50.000		104	75-125			
Arsenic	51.19	-		µg/L	50.000		102	85-115			
Selenium	51.63	-		µg/L	50.000		103	80-120			
Molybdenum	10.69	-		µg/L	10.002		107	85-115			
Cadmium	5.196	-		µg/L	5.0020		104	85-115			
Antimony	1.041	-		µg/L	0.99960		104	85-115			
Thallium	1.005	-		µg/L	1.0004		100	85-115			
Lead	10.17	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCVB)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.032	-		µg/L	0.99940		103	65-135			
Boron	97.13	-		µg/L	100.00		97.1	65-135			
Vanadium	51.50	-		µg/L	49.980		103	85-115			
Chromium	47.87	-		µg/L	50.000		95.7	85-115			
Cobalt	19.61	-		µg/L	20.020		97.9	85-115			
Zinc	52.68	-		µg/L	50.000		105	75-125			
Arsenic	50.92	-		µg/L	50.000		102	85-115			
Selenium	51.37	-		µg/L	50.000		103	80-120			
Molybdenum	10.93	-		µg/L	10.002		109	85-115			
Cadmium	5.294	-		µg/L	5.0020		106	85-115			
Antimony	1.075	-		µg/L	0.99960		108	85-115			
Thallium	1.016	-		µg/L	1.0004		102	85-115			
Lead	10.27	-		µg/L	10.000		103	80-120			

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University Of Illinois - Natural History Survey
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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 fish (livers)
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:30

Quality Control Data

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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVC)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.028	-		µg/L	0.99940		103	65-135			
Boron	97.11	-		µg/L	100.00		97.1	65-135			
Vanadium	50.07	-		µg/L	49.980		100	85-115			
Chromium	47.88	-		µg/L	50.000		95.8	85-115			
Cobalt	19.44	-		µg/L	20.020		97.1	85-115			
Zinc	51.66	-		µg/L	50.000		103	75-125			
Arsenic	50.28	-		µg/L	50.000		101	85-115			
Selenium	50.78	-		µg/L	50.000		102	80-120			
Molybdenum	10.64	-		µg/L	10.002		106	85-115			
Cadmium	5.236	-		µg/L	5.0020		105	85-115			
Antimony	1.063	-		µg/L	0.99960		106	85-115			
Thallium	1.009	-		µg/L	1.0004		101	85-115			
Lead	10.29	-		µg/L	10.000		103	80-120			

Calibration Check (6I20023-CCVD)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.027	-		µg/L	0.99940		103	65-135			
Boron	98.01	-		µg/L	100.00		98.0	65-135			
Vanadium	50.57	-		µg/L	49.980		101	85-115			
Chromium	47.88	-		µg/L	50.000		95.8	85-115			
Cobalt	19.46	-		µg/L	20.020		97.2	85-115			
Zinc	52.67	-		µg/L	50.000		105	75-125			
Arsenic	50.94	-		µg/L	50.000		102	85-115			
Selenium	52.57	-		µg/L	50.000		105	80-120			
Molybdenum	10.98	-		µg/L	10.002		110	85-115			
Cadmium	5.349	-		µg/L	5.0020		107	85-115			
Antimony	1.086	-		µg/L	0.99960		109	85-115			
Thallium	1.026	-		µg/L	1.0004		103	85-115			
Lead	10.36	-		µg/L	10.000		104	80-120			

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University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVE)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.040	-		µg/L	0.99940		104	65-135			
Boron	100.3	-		µg/L	100.00		100	65-135			
Vanadium	49.98	-		µg/L	49.980		100	85-115			
Chromium	48.97	-		µg/L	50.000		97.9	85-115			
Cobalt	19.56	-		µg/L	20.020		97.7	85-115			
Zinc	53.19	-		µg/L	50.000		106	75-125			
Arsenic	51.65	-		µg/L	50.000		103	85-115			
Selenium	52.76	-		µg/L	50.000		106	80-120			
Molybdenum	10.79	-		µg/L	10.002		108	85-115			
Cadmium	5.327	-		µg/L	5.0020		106	85-115			
Antimony	1.066	-		µg/L	0.99960		107	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.37	-		µg/L	10.000		104	80-120			

Calibration Check (6I20023-CCVF)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.011	-		µg/L	0.99940		101	65-135			
Boron	97.69	-		µg/L	100.00		97.7	65-135			
Vanadium	48.34	-		µg/L	49.980		96.7	85-115			
Chromium	48.56	-		µg/L	50.000		97.1	85-115			
Cobalt	19.78	-		µg/L	20.020		98.8	85-115			
Zinc	53.41	-		µg/L	50.000		107	75-125			
Arsenic	50.90	-		µg/L	50.000		102	85-115			
Selenium	52.10	-		µg/L	50.000		104	80-120			
Molybdenum	10.65	-		µg/L	10.002		107	85-115			
Cadmium	5.290	-		µg/L	5.0020		106	85-115			
Antimony	1.048	-		µg/L	0.99960		105	85-115			
Thallium	1.021	-		µg/L	1.0004		102	85-115			
Lead	10.34	-		µg/L	10.000		103	80-120			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 fish (livers)
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVG)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.041	-		µg/L	0.99940		104	65-135			
Boron	96.87	-		µg/L	100.00		96.9	65-135			
Vanadium	50.43	-		µg/L	49.980		101	85-115			
Chromium	48.53	-		µg/L	50.000		97.1	85-115			
Cobalt	19.60	-		µg/L	20.020		97.9	85-115			
Zinc	52.77	-		µg/L	50.000		106	75-125			
Arsenic	51.41	-		µg/L	50.000		103	85-115			
Selenium	52.66	-		µg/L	50.000		105	80-120			
Molybdenum	10.92	-		µg/L	10.002		109	85-115			
Cadmium	5.301	-		µg/L	5.0020		106	85-115			
Antimony	1.075	-		µg/L	0.99960		108	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.49	-		µg/L	10.000		105	80-120			

Calibration Check (6I20023-CCVH)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.041	-		µg/L	0.99940		104	65-135			
Boron	97.46	-		µg/L	100.00		97.5	65-135			
Vanadium	46.58	-		µg/L	49.980		93.2	85-115			
Chromium	47.81	-		µg/L	50.000		95.6	85-115			
Cobalt	19.30	-		µg/L	20.020		96.4	85-115			
Zinc	53.10	-		µg/L	50.000		106	75-125			
Arsenic	51.31	-		µg/L	50.000		103	85-115			
Selenium	52.16	-		µg/L	50.000		104	80-120			
Molybdenum	10.89	-		µg/L	10.002		109	85-115			
Cadmium	5.307	-		µg/L	5.0020		106	85-115			
Antimony	1.067	-		µg/L	0.99960		107	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.34	-		µg/L	10.000		103	80-120			

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 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 fish (livers)
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVI)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.025	-		µg/L	0.99940		103	65-135			
Boron	97.40	-		µg/L	100.00		97.4	65-135			
Vanadium	50.22	-		µg/L	49.980		100	85-115			
Chromium	48.63	-		µg/L	50.000		97.3	85-115			
Cobalt	19.26	-		µg/L	20.020		96.2	85-115			
Zinc	52.74	-		µg/L	50.000		105	75-125			
Arsenic	50.94	-		µg/L	50.000		102	85-115			
Selenium	53.39	-		µg/L	50.000		107	80-120			
Molybdenum	10.86	-		µg/L	10.002		109	85-115			
Cadmium	5.312	-		µg/L	5.0020		106	85-115			
Antimony	1.093	-		µg/L	0.99960		109	85-115			
Thallium	1.026	-		µg/L	1.0004		103	85-115			
Lead	10.49	-		µg/L	10.000		105	80-120			

Initial Cal Blank (6I20023-ICB1)

Prepared & Analyzed: 19-Sep-16

Beryllium	-0.0001	-		µg/L							U
Boron	1.05	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.002	-		µg/L							
Cobalt	0.001	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	-0.006	-		µg/L							U
Selenium	0.07	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.005	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.0003	-		µg/L							U

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Initial Cal Check (6I20023-ICV1)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.075	-		µg/L	0.99940		108	65-135			
Boron	103.0	-		µg/L	100.00		103	65-135			
Vanadium	53.02	-		µg/L	49.980		106	85-115			
Chromium	48.92	-		µg/L	50.000		97.8	85-115			
Cobalt	19.64	-		µg/L	20.020		98.1	85-115			
Zinc	52.55	-		µg/L	50.000		105	75-125			
Arsenic	51.24	-		µg/L	50.000		102	85-115			
Selenium	53.53	-		µg/L	50.000		107	80-120			
Molybdenum	10.49	-		µg/L	10.002		105	85-115			
Cadmium	5.160	-		µg/L	5.0020		103	85-115			
Antimony	1.045	-		µg/L	0.99960		105	85-115			
Thallium	0.996	-		µg/L	1.0004		99.6	85-115			
Lead	10.20	-		µg/L	10.000		102	80-120			

Batch 6I22006 - F608500

Cal Standard (6I22006-CAL1)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	0.08	-		µg/L	0.10000		82.8				
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Cal Standard (6I22006-CAL2)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	0.20	-		µg/L	0.20000		97.9				
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Cal Standard (6I22006-CAL3)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	0.95	-		µg/L	0.40000		238				
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Cal Standard (6I22006-CAL4)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	12.35	-		µg/L	12.500		98.8				
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University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I22006 - F608500											
Cal Standard (6I22006-CAL5)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	24.78	-		µg/L	25.000		99.1				
Cal Standard (6I22006-CAL6)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	50.05	-		µg/L	50.000		100				
Cal Standard (6I22006-CAL7)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	123.7	-		µg/L	125.00		99.0				
Cal Standard (6I22006-CAL8)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	250.6	-		µg/L	250.00		100				
Cal Standard (6I22006-CAL9)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	500.0	-		µg/L	500.00		100				
Calibration Blank (6I22006-CCB1)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	0.01	-		µg/L							
Calibration Blank (6I22006-CCB2)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	0.004	-		µg/L							
Calibration Blank (6I22006-CCB3)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	0.005	-		µg/L							
Calibration Blank (6I22006-CCB4)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	0.01	-		µg/L							
Calibration Check (6I22006-CCV1)					Prepared: 19-Sep-16 Analyzed: 21-Sep-16						
Zinc	53.18	-		µg/L	50.000		106	75-125			

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
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Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I22006 - F608500

Calibration Check (6I22006-CCV2)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	52.50	-		µg/L	50.000		105	75-125			
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Calibration Check (6I22006-CCV3)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	52.94	-		µg/L	50.000		106	75-125			
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Calibration Check (6I22006-CCV4)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	53.03	-		µg/L	50.000		106	75-125			
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Initial Cal Blank (6I22006-ICB1)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	-0.008	-		µg/L							U
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Initial Cal Check (6I22006-ICV1)

Prepared: 19-Sep-16 Analyzed: 21-Sep-16

Zinc	53.11	-		µg/L	50.000		106	75-125			
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Batch 6I30006 - F609460

Cal Standard (6I30006-CAL1)

Prepared & Analyzed: 29-Sep-16

Mercury	0.5	-		ng/L	0.50100		98.9				
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Cal Standard (6I30006-CAL2)

Prepared & Analyzed: 29-Sep-16

Mercury	1.0	-		ng/L	1.0020		97.0				
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Cal Standard (6I30006-CAL3)

Prepared & Analyzed: 29-Sep-16

Mercury	5.2	-		ng/L	5.0100		104				
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Cal Standard (6I30006-CAL4)

Prepared & Analyzed: 29-Sep-16

Mercury	19.8	-		ng/L	20.040		98.9				
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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: pond 6 fish (livers) Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:30
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I30006 - F609460											
Cal Standard (6I30006-CAL5)					Prepared & Analyzed: 29-Sep-16						
Mercury	40.3	-		ng/L	40.080		101				
Calibration Blank (6I30006-CCB1)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.06	-		ng/L							
Calibration Blank (6I30006-CCB2)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.002	-		ng/L							
Calibration Blank (6I30006-CCB3)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.08	-		ng/L							
Calibration Blank (6I30006-CCB4)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.03	-		ng/L							
Calibration Blank (6I30006-CCB5)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.07	-		ng/L							
Calibration Blank (6I30006-CCB6)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.1	-		ng/L							
Calibration Blank (6I30006-CCB7)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.2	-		ng/L							
Calibration Blank (6I30006-CCB8)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.08	-		ng/L							
Calibration Blank (6I30006-CCB9)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.2	-		ng/L							

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I30006 - F609460											
Calibration Blank (6I30006-CCBA) Prepared & Analyzed: 29-Sep-16											
Mercury	0.2	-		ng/L							
Calibration Check (6I30006-CCV1) Prepared & Analyzed: 29-Sep-16											
Mercury	5.3	-		ng/L	5.0000		105	77-123			
Calibration Check (6I30006-CCV2) Prepared & Analyzed: 29-Sep-16											
Mercury	5.3	-		ng/L	5.0000		106	77-123			
Calibration Check (6I30006-CCV3) Prepared & Analyzed: 29-Sep-16											
Mercury	5.4	-		ng/L	5.0000		107	77-123			
Calibration Check (6I30006-CCV4) Prepared & Analyzed: 29-Sep-16											
Mercury	5.3	-		ng/L	5.0000		107	77-123			
Calibration Check (6I30006-CCV5) Prepared & Analyzed: 29-Sep-16											
Mercury	5.2	-		ng/L	5.0000		104	77-123			
Calibration Check (6I30006-CCV6) Prepared & Analyzed: 29-Sep-16											
Mercury	5.7	-		ng/L	5.0000		113	77-123			
Calibration Check (6I30006-CCV7) Prepared & Analyzed: 29-Sep-16											
Mercury	5.5	-		ng/L	5.0000		109	77-123			
Calibration Check (6I30006-CCV8) Prepared & Analyzed: 29-Sep-16											
Mercury	5.4	-		ng/L	5.0000		108	77-123			
Calibration Check (6I30006-CCV9) Prepared & Analyzed: 29-Sep-16											
Mercury	5.6	-		ng/L	5.0000		111	77-123			

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Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I30006 - F609460

Calibration Check (6I30006-CCVA)

Prepared & Analyzed: 29-Sep-16

Mercury	5.7	-		ng/L	5.0000		114	77-123			
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Instrument Blank (6I30006-IBL1)

Prepared & Analyzed: 29-Sep-16

Mercury	ND	-	0.2	ng/L							U
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Instrument Blank (6I30006-IBL2)

Prepared & Analyzed: 29-Sep-16

Mercury	ND	-	0.2	ng/L							U
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Instrument Blank (6I30006-IBL3)

Prepared & Analyzed: 29-Sep-16

Mercury	ND	-	0.2	ng/L							U
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Initial Cal Check (6I30006-ICV1)

Prepared & Analyzed: 29-Sep-16

Mercury	5.7	-		ng/L	5.0000		115	77-123			
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F608500-BLK1)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.150	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Molybdenum	ND	-	0.03	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F608500-BLK2)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.150	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Molybdenum	ND	-	0.03	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

LCS (F608500-BS1)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	3.932	-	0.080	mg/kg	4.0010		98.3	65-135			
Boron	46.59	-	2.40	mg/kg	50.000		93.2	65-135			
Vanadium	5.146	-	0.150	mg/kg	4.9990		103	85-115			
Chromium	4.94	-	0.15	mg/kg	5.0010		98.8	85-115			
Cobalt	3.98	-	0.05	mg/kg	4.0000		99.6	85-115			
Zinc	5.14	-	0.25	mg/kg	5.0020		103	75-125			
Arsenic	4.99	-	0.20	mg/kg	5.0010		99.8	85-115			
Selenium	5.02	-	0.30	mg/kg	5.0020		100	80-120			
Molybdenum	5.25	-	0.03	mg/kg	5.0000		105	85-115			
Cadmium	4.057	-	0.010	mg/kg	4.0030		101	85-115			
Antimony	4.218	-	0.025	mg/kg	3.9990		105	85-115			
Thallium	4.214	-	0.002	mg/kg	3.9980		105	80-120			
Lead	5.306	-	0.020	mg/kg	5.0010		106	80-120			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS Dup (F608500-BSD1)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	4.047	-	0.080	mg/kg	4.0010		101	65-135	2.89	20	
Boron	48.28	-	2.40	mg/kg	50.0000		96.6	65-135	3.55	20	
Vanadium	5.285	-	0.150	mg/kg	4.9990		106	85-115	2.66	20	
Chromium	5.09	-	0.15	mg/kg	5.0010		102	85-115	2.88	20	
Cobalt	4.09	-	0.05	mg/kg	4.0000		102	85-115	2.59	20	
Zinc	5.24	-	0.25	mg/kg	5.0020		105	75-125	2.07	20	
Arsenic	5.06	-	0.20	mg/kg	5.0010		101	85-115	1.27	20	
Selenium	5.01	-	0.30	mg/kg	5.0020		100	80-120	0.123	20	
Molybdenum	5.38	-	0.03	mg/kg	5.0000		108	85-115	2.41	20	
Cadmium	4.143	-	0.010	mg/kg	4.0030		104	85-115	2.09	20	
Antimony	4.243	-	0.025	mg/kg	3.9990		106	85-115	0.607	20	
Thallium	4.312	-	0.002	mg/kg	3.9980		108	80-120	2.28	20	
Lead	5.435	-	0.020	mg/kg	5.0010		109	80-120	2.40	20	


Matrix Spike (F608500-MS1)

Source: 1608277-02

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	3.376	-	0.066	mg/kg	3.3001	ND	102	60-140			
Boron	40.69	-	1.98	mg/kg	41.241	0.50	97.5	60-140			
Vanadium	4.744	-	0.124	mg/kg	4.1232	0.383	106	75-125			
Chromium	4.16	-	0.12	mg/kg	4.1249	0.04	99.9	75-125			
Cobalt	4.09	-	0.04	mg/kg	3.2992	0.64	105	75-125			
Arsenic	4.69	-	0.16	mg/kg	4.1249	0.27	107	80-120			
Selenium	6.27	-	0.25	mg/kg	4.1257	1.67	111	65-135			
Molybdenum	5.07	-	0.02	mg/kg	4.1241	0.51	110	75-125			
Cadmium	5.548	-	0.008	mg/kg	3.3017	1.975	108	75-125			
Antimony	3.559	-	0.021	mg/kg	3.2984	0.014	107	80-120			
Thallium	3.452	-	0.002	mg/kg	3.2976	0.004	105	80-120			
Lead	4.399	-	0.016	mg/kg	4.1249	0.035	106	75-125			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F608500-MS2)	Source: 1608277-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	3.679	-	0.074	mg/kg	3.6787	ND	100	60-140			
Boron	44.59	-	2.21	mg/kg	45.973	1.01	94.8	60-140			
Vanadium	5.264	-	0.138	mg/kg	4.5964	1.293	86.4	75-125			
Chromium	4.53	-	0.14	mg/kg	4.5982	ND	98.6	75-125			
Cobalt	4.49	-	0.05	mg/kg	3.6778	0.92	97.0	75-125			
Zinc	26.61	-	0.23	mg/kg	4.5991	21.64	108	65-135			
Arsenic	4.67	-	0.18	mg/kg	4.5982	0.06	100	80-120			
Selenium	5.53	-	0.28	mg/kg	4.5991	0.97	99.1	65-135			
Molybdenum	4.86	-	0.03	mg/kg	4.5973	0.13	103	75-125			
Cadmium	4.221	-	0.009	mg/kg	3.6806	0.588	98.7	75-125			
Antimony	3.836	-	0.023	mg/kg	3.6769	ND	104	80-120			
Thallium	3.864	-	0.002	mg/kg	3.6760	0.002	105	80-120			
Lead	4.923	-	0.018	mg/kg	4.5982	0.038	106	75-125			

Matrix Spike (F608500-MS3)	Source: 1608277-02			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	0.835	-	0.059	mg/kg	0.91723	ND	91.1	60-140			AS
Boron	61.99	-	1.76	mg/kg	73.378	0.50	83.8	60-140			AS
Vanadium	16.27	-	0.110	mg/kg	18.345	0.383	86.6	75-125			AS
Chromium	16.54	-	0.11	mg/kg	18.345	0.04	90.0	75-125			AS
Cobalt	8.98	-	0.04	mg/kg	9.1723	0.64	90.9	75-125			AS
Arsenic	18.33	-	0.15	mg/kg	18.345	0.27	98.4	80-120			AS
Selenium	20.18	-	0.22	mg/kg	18.345	1.67	101	65-135			AS
Molybdenum	9.13	-	0.02	mg/kg	9.1723	0.51	93.9	75-125			AS
Cadmium	3.693	-	0.007	mg/kg	1.8345	1.975	93.6	75-125			AS
Antimony	0.851	-	0.018	mg/kg	0.91723	0.014	91.3	80-120			AS
Thallium	0.848	-	0.002	mg/kg	0.91723	0.004	92.0	80-120			AS
Lead	4.294	-	0.015	mg/kg	4.5861	0.035	92.9	75-125			AS

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F608500-MS4)		Source: 1608277-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16						
Beryllium	1.076	-	0.076	mg/kg	1.1896	ND	90.4	60-140			AS
Boron	80.81	-	2.28	mg/kg	95.166	1.01	83.8	60-140			AS
Vanadium	23.76	-	0.143	mg/kg	23.791	1.293	94.4	75-125			AS
Chromium	21.91	-	0.14	mg/kg	23.791	ND	92.1	75-125			AS
Cobalt	12.02	-	0.05	mg/kg	11.896	0.92	93.3	75-125			AS
Zinc	78.98	-	0.24	mg/kg	59.478	21.64	96.4	65-135			AS
Arsenic	22.48	-	0.19	mg/kg	23.791	0.06	94.2	80-120			AS
Selenium	23.37	-	0.29	mg/kg	23.791	0.97	94.2	65-135			AS
Molybdenum	11.67	-	0.03	mg/kg	11.896	0.13	97.0	75-125			AS
Cadmium	2.926	-	0.010	mg/kg	2.3791	0.588	98.3	75-125			AS
Antimony	1.088	-	0.024	mg/kg	1.1896	ND	91.4	80-120			AS
Thallium	1.142	-	0.002	mg/kg	1.1896	0.002	95.8	80-120			AS
Lead	5.761	-	0.019	mg/kg	5.9478	0.038	96.2	75-125			AS

Matrix Spike (F608500-MS5)		Source: 1608277-02RE1			Prepared: 17-Sep-16 Analyzed: 21-Sep-16						
Zinc	291.2	-	1.03	mg/kg	4.1257	286.1	124	65-135			QM-05

Matrix Spike (F608500-MS6)		Source: 1608277-02RE1			Prepared: 17-Sep-16 Analyzed: 21-Sep-16						
Zinc	536.2	-	0.92	mg/kg	183.45	286.1	136	65-135			AS, QM-05

Matrix Spike Dup (F608500-MSD1)		Source: 1608277-02			Prepared: 17-Sep-16 Analyzed: 20-Sep-16						
Beryllium	3.966	-	0.079	mg/kg	3.9756	ND	99.7	60-140	2.51	20	
Boron	47.75	-	2.38	mg/kg	49.682	0.50	95.1	60-140	2.44	20	
Vanadium	5.401	-	0.149	mg/kg	4.9672	0.383	101	75-125	4.60	20	
Chromium	5.07	-	0.15	mg/kg	4.9692	0.04	101	75-125	1.46	20	
Cobalt	4.67	-	0.05	mg/kg	3.9746	0.64	101	75-125	3.11	20	
Arsenic	5.41	-	0.20	mg/kg	4.9692	0.27	103	80-120	3.52	20	
Selenium	6.56	-	0.30	mg/kg	4.9702	1.67	98.4	65-135	12.3	20	
Molybdenum	5.70	-	0.03	mg/kg	4.9682	0.51	105	75-125	5.55	20	
Cadmium	5.945	-	0.010	mg/kg	3.9775	1.975	99.8	75-125	8.06	20	
Antimony	4.208	-	0.025	mg/kg	3.9736	0.014	106	80-120	1.82	20	
Thallium	4.202	-	0.002	mg/kg	3.9726	0.004	106	80-120	1.06	20	
Lead	5.322	-	0.020	mg/kg	4.9692	0.035	106	75-125	0.577	20	

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Patrick Garcia-Strickland, Laboratory Director

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data


Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F608500-MSD2)	Source: 1608277-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	4.064	-	0.080	mg/kg	3.9803	ND	102	60-140	2.09	20	
Boron	49.07	-	2.39	mg/kg	49.741	1.01	96.6	60-140	1.89	20	
Vanadium	6.545	-	0.149	mg/kg	4.9731	1.293	106	75-125	20.0	20	
Chromium	5.22	-	0.15	mg/kg	4.9751	ND	105	75-125	6.16	20	
Cobalt	5.11	-	0.05	mg/kg	3.9793	0.92	105	75-125	8.06	20	
Zinc	27.86	-	0.25	mg/kg	4.9761	21.64	125	65-135	14.5	20	
Arsenic	5.31	-	0.20	mg/kg	4.9751	0.06	105	80-120	5.05	20	
Selenium	5.85	-	0.30	mg/kg	4.9761	0.97	98.0	65-135	1.10	20	
Molybdenum	5.61	-	0.03	mg/kg	4.9741	0.13	110	75-125	6.89	20	
Cadmium	4.889	-	0.010	mg/kg	3.9823	0.588	108	75-125	8.98	20	
Antimony	4.380	-	0.025	mg/kg	3.9783	ND	110	80-120	5.39	20	
Thallium	4.317	-	0.002	mg/kg	3.9773	0.002	108	80-120	3.20	20	
Lead	5.531	-	0.020	mg/kg	4.9751	0.038	110	75-125	3.84	20	

Matrix Spike Dup (F608500-MSD3)	Source: 1608277-02			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	0.889	-	0.059	mg/kg	0.91723	ND	97.0	60-140	6.28	20	AS
Boron	65.48	-	1.76	mg/kg	73.378	0.50	88.6	60-140	5.52	20	AS
Vanadium	18.12	-	0.110	mg/kg	18.345	0.383	96.7	75-125	11.0	20	AS
Chromium	17.46	-	0.11	mg/kg	18.345	0.04	95.0	75-125	5.42	20	AS
Cobalt	9.45	-	0.04	mg/kg	9.1723	0.64	96.1	75-125	5.53	20	AS
Arsenic	19.15	-	0.15	mg/kg	18.345	0.27	103	80-120	4.43	20	AS
Selenium	20.83	-	0.22	mg/kg	18.345	1.67	104	65-135	3.48	20	AS
Molybdenum	9.66	-	0.02	mg/kg	9.1723	0.51	99.7	75-125	5.98	20	AS
Cadmium	3.858	-	0.007	mg/kg	1.8345	1.975	103	75-125	9.18	20	AS
Antimony	0.887	-	0.018	mg/kg	0.91723	0.014	95.2	80-120	4.18	20	AS
Thallium	0.901	-	0.002	mg/kg	0.91723	0.004	97.8	80-120	6.13	20	AS
Lead	4.559	-	0.015	mg/kg	4.5861	0.035	98.6	75-125	6.03	20	AS

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608500 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F608500-MSD4)		Source: 1608277-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16						
Beryllium	1.072	-	0.076	mg/kg	1.1896	ND	90.1	60-140	0.355	20	AS
Boron	81.25	-	2.28	mg/kg	95.166	1.01	84.3	60-140	0.558	20	AS
Vanadium	23.17	-	0.143	mg/kg	23.791	1.293	92.0	75-125	2.67	20	AS
Chromium	21.56	-	0.14	mg/kg	23.791	ND	90.6	75-125	1.59	20	AS
Cobalt	11.80	-	0.05	mg/kg	11.896	0.92	91.5	75-125	2.00	20	AS
Zinc	77.30	-	0.24	mg/kg	59.478	21.64	93.6	65-135	2.96	20	AS
Arsenic	21.97	-	0.19	mg/kg	23.791	0.06	92.1	80-120	2.32	20	AS
Selenium	23.07	-	0.29	mg/kg	23.791	0.97	92.9	65-135	1.34	20	AS
Molybdenum	11.53	-	0.03	mg/kg	11.896	0.13	95.8	75-125	1.20	20	AS
Cadmium	2.876	-	0.010	mg/kg	2.3791	0.588	96.2	75-125	2.18	20	AS
Antimony	1.088	-	0.024	mg/kg	1.1896	ND	91.5	80-120	0.0503	20	AS
Thallium	1.126	-	0.002	mg/kg	1.1896	0.002	94.6	80-120	1.34	20	AS
Lead	5.649	-	0.019	mg/kg	5.9478	0.038	94.3	75-125	1.99	20	AS

Matrix Spike Dup (F608500-MSD5)		Source: 1608277-02RE1			Prepared: 17-Sep-16 Analyzed: 21-Sep-16						
Zinc	254.8	-	1.24	mg/kg	4.9702	286.1	-629	65-135	-298	20	QM-05, QR-08

Matrix Spike Dup (F608500-MSD6)		Source: 1608277-02RE1			Prepared: 17-Sep-16 Analyzed: 21-Sep-16						
Zinc	528.3	-	0.92	mg/kg	183.45	286.1	132	65-135	3.21	20	AS, QM-05

Batch F609581 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F609581-BLK1)		Prepared: 27-Sep-16 Analyzed: 29-Sep-16										
Mercury	ND	-	3.0	ng/g								U

Blank (F609581-BLK2)		Prepared: 27-Sep-16 Analyzed: 29-Sep-16										
Mercury	ND	-	3.0	ng/g								U

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Project Number: pond 6 fish (livers)
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F609581 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS (F609581-BS1)					Prepared: 27-Sep-16 Analyzed: 29-Sep-16						
Mercury	294.0	-	75.0	ng/g	300.00		98.0	75-125			
LCS Dup (F609581-BSD1)					Prepared: 27-Sep-16 Analyzed: 29-Sep-16						
Mercury	298.6	-	75.0	ng/g	300.00		99.5	75-125	1.56	24	
Matrix Spike (F609581-MS1)					Source: 1608277-02		Prepared: 27-Sep-16 Analyzed: 29-Sep-16				
Mercury	302.7	-	61.9	ng/g	247.44	31.6	110	71-125			
Matrix Spike (F609581-MS2)					Source: 1608277-01		Prepared: 27-Sep-16 Analyzed: 29-Sep-16				
Mercury	304.5	-	69.0	ng/g	275.84	40.7	95.7	71-125			
Matrix Spike Dup (F609581-MSD1)					Source: 1608277-02		Prepared: 27-Sep-16 Analyzed: 29-Sep-16				
Mercury	327.9	-	74.5	ng/g	298.09	31.6	99.4	71-125	9.71	24	
Matrix Spike Dup (F609581-MSD2)					Source: 1608277-01		Prepared: 27-Sep-16 Analyzed: 29-Sep-16				
Mercury	354.3	-	74.6	ng/g	298.45	40.7	105	71-125	9.39	24	

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 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 fish (livers)
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:30

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-08 The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
- QM-13 The analytical spike recovery was outside control limits for the AS and/or ASD. The batch was accepted based on MS/MSD and LCS/LCSD recoveries within control limits.
- QM-05 The spike recovery was outside acceptance limits for the MS/MSD and or AS/ASD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

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30 September 2016

Jeff Levensgood PhD, CWB
University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign, ILLINOIS 61820

RE: Trace Metals In Snails, Fish Liver And Fillet 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Patrick Garcia-Strickland". The signature is written in a cursive style with a large initial "P".

Patrick Garcia-Strickland
Laboratory Director



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
91 Pond 6 North 1	1608278-01	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
92 Pond 6 North 2	1608278-02	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
93 Pond 6 North 3	1608278-03	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
94 Pond 6 North 4	1608278-04	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
95 Pond 6 Ramp 5	1608278-05	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
96 Pond 6 Middle 1	1608278-06	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
97 Pond 6 Middle 2	1608278-07	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
98 Pond 6 Middle 3	1608278-08	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
99 Pond 6 Middle 4	1608278-09	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
100 Pond 6 Middle 5	1608278-10	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
101 Pond 6 Ramp 1	1608278-11	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
111 Long Pond Middle 1	1608278-12	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
112 Long Pond Middle 2	1608278-13	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
113 Long Pond Middle 3	1608278-14	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
114 Long Pond Middle 4	1608278-15	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
115 Long Pond Middle 5	1608278-16	Tissue	08-Aug-16 00:00	09-Aug-16 10:00
116 Long Pond South 1	1608278-17	Tissue	08-Aug-16 00:00	09-Aug-16 10:00

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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levengood PhD, CWB**Reported:**
30-Sep-16 15:27

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 8/9/2016 10:00:00 AM . The samples were received intact, on-ice within a sealed cooler at 3.3 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

Trace metals preparation and analysis was performed by inductively coupled plasma mass spectrometry (ICP-MS) in accordance with EFGS-054, a modified EPA 1638.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Sample Receipt Checklist

EFGS Work Order: 1608278

Client: University of Illinois

Date & Time Received: _____

Date Labeled: 8/16 Labeled By: WF

Project: 618/16 1000

Received By: CSP

Label Verified By: CSP

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

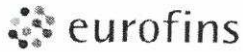
Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>N</u>	

TID: <u>5225</u>	CF: <u>-0.1 °C</u>	Date/time: <u>8/9/16 1000</u>	By: <u>CSP</u>
Cooler 1: <u>3.4</u> °C	w/ CF: <u>3.3</u> °C	Cooler 4: °C	w/ CF: °C
Cooler 2: °C	w/ CF: °C	Cooler 5: °C	w/ CF: °C
Cooler 3: °C	w/ CF: °C	Cooler 6: °C	w/ CF: °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:		
Sampled by:	<u>Y</u>	
Preservation type:	<u>N/A</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):



Frontier Global Sciences

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

Page 1 of 5

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
Phone: 425-686-1996
Fax: 425-686-3096
info@FrontierGS.com
http://www.FrontierGS.com

Client: University of Illinois
Contact: Jeff Levensgood
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820
Project Name: pond 6 snails
Report To: Jeff Levensgood
Invoice To: University of Illinois
Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866
Phone: 2173336767 Fax:
E-mail: levensgoo@illinois.edu

Table with columns: No., Engraved Bottle ID, Sample ID, # of bags, Matrix, Date & Time, Sampled By, Field Filtered (Y/N), Field Preserved: HNO3, HCl, BrCl, Other (%), Analyses Requested (As, B, Be, Cd, Co, Cr, Hg, Pb, Mo, Sb, Se, Sn, V, Zn), Comments. Rows 1-11 with handwritten data.

For Laboratory Use Only
COC Seal: NA 15075/1000
Cooler Temp: 3.3°C
Carrier: UPS
VTSR: 1000
of Coolers:
Matrix Codes: FW: Fresh Water, WW: Waste Water, SB: Sea and Brackish Water, SS: Soil and Sediment, TS: Plant and Animal Tissue, HC: Hydrocarbons, TR: Trap, OT: Other
Relinquished By: [Signature]
Received By: Amy Dickinson
Name: Jeff Levensgood, Amy Dickinson, Corbin Powell
Organization: INHS, INHS, EFGS
Date & Time: 7/6/16 16:00, 7/6/16 16:01, 8/10/16 1000
Tracking number: 12 619 179 5681 9991

Sample Disposal:
Return (shipping fees may apply)
Standard Disposal - 30 Days after report
Retain for ___ weeks after report (storage fees may apply)
By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.
Customer Approval:
Date:

1608278

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

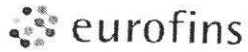
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Fax: 425-686-3096
info@FrontierGS.com
http://www.FrontierGS.com



Frontier Global Sciences

Page 2 of 3

Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 snails		E-mail: levensgoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.		
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Address:		Invoice To: University of Illinois									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)		
Phone: 2173336767 Fax:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									EDD <input type="checkbox"/> Y <input type="checkbox"/> N		
E-mail: levensgoo@illinois.edu		Phone: Fax:						QA <input type="checkbox"/> Standard <input type="checkbox"/> High					
No.	Engraved Bottle ID	Sample ID	# of bags	Matrix	Date & Time								Comments
1	103	Pond 6 South 3	1	TS		IL, DS	NA	X					
2	104	Pond 6 South 4	1	X			"	X					
3	105	Pond 6 South 5	1	X			"	X					
4	106	Long Pond North 1	1	X			"	X					
5	107	Long Pond North 2	1	X			"	X					
6	108	Long Pond North 3	1	X			"	X					
7	109	Long Pond North 4	1	X			"	X					
8	110	Long Pond North 5	1	X			"	X					
9	111	Long Pond Middle 1	1	X			"	X					
10	112	Long Pond Middle 2	1	X			"	X					
11	113	Long Pond Middle 3	1	X			"	X					
12	114	Long Pond Middle 4	1	X			"	X					
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:			
COC Seal:	Comments:		FW: Fresh Water			Name:		Name:		Name:			
Cooler Temp:			WW: Waste Water										
Carrier:			SB: Sea and Brackish Water										
VTSR:			SS: Soil and Sediment										
# of Coolers:			TS: Plant and Animal Tissue										
	HC: Hydrocarbons			Date & Time:		Date & Time:		Date & Time:					
	TR: Trap			Tracking number:									
	OT: Other												
Sample Disposal:						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
<input type="checkbox"/> Return (shipping fees may apply)						Customer Approval: _____ Date: _____							
<input type="checkbox"/> Standard Disposal - 30 Days after report													
<input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)													



Frontier Global Sciences

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

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Bothell, WA 98011
Phone: 425-686-1996
Fax: 425-686-3096
info@FrontierGS.com
http://www.FrontierGS.com

Page 3 of 3

Client: University of Illinois		Contact: Jeff Levengood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:								
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:					Date:												
Project Name: pond 6 snails		E-mail: levengoo@illinois.edu					TAT (business days): 20 (std)												
Report To: Jeff Levengood		Contract/PO:					15 10 5 4 3 2 24 hrs.												
Address:		Invoice To: University of Illinois					(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)												
Phone: 2173336767 Fax:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866					Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N												
E-mail: levengoo@illinois.edu		Phone: Fax:		(If yes, please contact PM)	EDD <input type="checkbox"/> Y <input type="checkbox"/> N														
E-mail: levengoo@illinois.edu		E-mail:		QA <input type="checkbox"/> Standard <input type="checkbox"/> High					Comments										
No.	Engraved Bottle ID	Sample ID	# of bags	Matrix	Date & Time														
1	115	Long Pond Middle 5	1	TS		JL, DS		NA	x										
2	116	Long Pond South 1	1	x				"	x										
3	117	Long Pond South 2	1	x				"	x										
4	118	Long Pond South 3	1	x				"	x										
5	119	Long Pond South 4	1	x				"	x										
6	120	Long Pond South 5	1	x				"	x										
7																			
8																			
9																			
10																			
11																			
12																			

For Laboratory Use Only		Matrix Codes:		Relinquished By:		Received By:		Received By:	
COC Seal:	Comments:	FW: Fresh Water		Name: <i>[Signature]</i>		Name: <i>[Signature]</i>		Name:	
Cooler Temp:		WW: Waste Water		Organization: <i>[Signature]</i>		Organization:		Organization:	
Carrier:		SB: Sea and Brackish Water		Date & Time:		Date & Time:		Date & Time:	
VTSR:		SS: Soil and Sediment		Tracking number:					
# of Coolers:		TS: Plant and Animal Tissue							
		HC: Hydrocarbons							
		TR: Trap							
		OT: Other							
Sample Disposal:				By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.					
<input type="checkbox"/> Return (shipping fees may apply)				Customer Approval: _____ Date: _____					
<input type="checkbox"/> Standard Disposal - 30 Days after report									
<input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)									

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

91 Pond 6 North 1
1608278-01

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								

Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	1.32	-	0.18	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.073	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.18	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.079	-	0.009	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.18	-	0.05	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.21	-	0.14	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	7.6	-	2.7	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.20	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.225	-	0.018	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.023	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.54	-	0.27	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.005	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.345	-	0.136	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	11.9	-	0.23	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	



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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

92 Pond 6 North 2
1608278-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.63	-	0.20	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.078	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.35	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.068	-	0.010	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.33	-	0.05	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.62	-	0.15	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	10.1	-	2.9	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.24	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.452	-	0.020	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.024	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.77	-	0.29	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.010	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.788	-	0.147	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	15.3	-	0.24	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Champaign ILLINOIS, 61820


Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

93 Pond 6 North 3
1608278-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.33	-	0.15	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.061	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.84	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.078	-	0.008	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.27	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.25	-	0.11	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	6.5	-	2.3	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.20	-	0.02	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.283	-	0.015	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.019	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.51	-	0.23	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.005	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.418	-	0.115	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	12.3	-	0.19	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

94 Pond 6 North 4
1608278-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.22	-	0.15	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.061	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.83	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.047	-	0.008	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.24	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.38	-	0.11	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	8.1	-	2.3	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.20	-	0.02	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.412	-	0.015	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.019	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.64	-	0.23	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.006	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.668	-	0.115	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	12.4	-	0.19	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

95 Pond 6 Ramp 5
1608278-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.29	-	0.20	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.080	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.39	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.107	-	0.010	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.29	-	0.05	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.36	-	0.15	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	17.0	-	3.0	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.23	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.528	-	0.020	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.025	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.65	-	0.30	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.008	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.633	-	0.149	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	13.8	-	0.25	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

96 Pond 6 Middle 1
1608278-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.10	-	0.20	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.079	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.38	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.083	-	0.010	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.30	-	0.05	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.39	-	0.15	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	17.5	-	3.0	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.18	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.456	-	0.020	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.025	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.69	-	0.30	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.009	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.641	-	0.149	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	13.1	-	0.25	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

97 Pond 6 Middle 2

1608278-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.32	-	0.20	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.079	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.37	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.075	-	0.010	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.69	-	0.05	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.95	-	0.15	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	18.4	-	3.0	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.21	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.992	-	0.020	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.025	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.84	-	0.30	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.013	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	1.55	-	0.148	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	15.5	-	0.25	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

98 Pond 6 Middle 3
1608278-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.31	-	0.18	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.072	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.16	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.083	-	0.009	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.55	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.74	-	0.13	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	17.8	-	2.7	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.20	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.906	-	0.018	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.022	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.71	-	0.27	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.012	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	1.33	-	0.135	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	15.6	-	0.22	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

99 Pond 6 Middle 4

1608278-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.41	-	0.19	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.075	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.26	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.092	-	0.009	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.67	-	0.05	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.83	-	0.14	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	24.9	-	2.8	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.24	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	1.01	-	0.019	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.024	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.86	-	0.28	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.014	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	1.48	-	0.141	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	17.7	-	0.24	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

100 Pond 6 Middle 5
1608278-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.36	-	0.27	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.108	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	3.25	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.125	-	0.014	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.50	-	0.07	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.65	-	0.20	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	20.9	-	4.1	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.16	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.717	-	0.027	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.034	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.64	-	0.41	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.012	-	0.003	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	1.12	-	0.203	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	14.9	-	0.34	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

101 Pond 6 Ramp 1
1608278-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.24	-	0.17	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.069	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.08	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.103	-	0.009	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.25	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.30	-	0.13	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	17.4	-	2.6	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.26	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.469	-	0.017	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.022	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.70	-	0.26	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.008	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.612	-	0.130	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	14.1	-	0.22	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

111 Long Pond Middle 1
1608278-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	3.60	-	0.16	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.063	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.89	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.205	-	0.008	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	1.01	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.97	-	0.12	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	10.2	-	2.4	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.28	-	0.02	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	2.55	-	0.016	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.020	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.68	-	0.24	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.014	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	1.44	-	0.118	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	17.4	-	0.20	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

112 Long Pond Middle 2
1608278-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	2.34	-	0.16	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.066	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.98	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.171	-	0.008	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.68	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.71	-	0.12	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	7.4	-	2.5	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.19	-	0.02	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	1.67	-	0.016	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.021	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.51	-	0.25	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.013	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.983	-	0.124	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	13.7	-	0.21	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

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University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 snails
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:27

113 Long Pond Middle 3
1608278-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	1.97	-	0.18	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.072	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.15	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.135	-	0.009	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.42	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.43	-	0.13	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	7.2	-	2.7	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.18	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.952	-	0.018	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.022	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.42	-	0.27	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.009	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.578	-	0.135	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	12.5	-	0.22	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 snails
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:27

114 Long Pond Middle 4
1608278-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	2.09	-	0.20	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.078	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.35	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.197	-	0.010	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.42	-	0.05	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.36	-	0.15	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	7.7	-	2.9	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.19	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.919	-	0.020	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.024	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.58	-	0.29	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.009	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.505	-	0.147	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	12.5	-	0.24	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

115 Long Pond Middle 5
1608278-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion											
Arsenic	1.95	-	0.17	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.066	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	1.99	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.144	-	0.008	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.50	-	0.04	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.56	-	0.12	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	6.7	-	2.5	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.19	-	0.02	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	1.24	-	0.017	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.021	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	0.43	-	0.25	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Thallium	0.009	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Vanadium	0.825	-	0.124	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	12.0	-	0.21	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

116 Long Pond South 1
1608278-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-058 Teflon Conc. Nitric Tissue Digestion

Arsenic	1.01	-	0.19	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Beryllium	ND	-	0.074	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Boron	ND	-	2.22	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Cadmium	0.014	-	0.009	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Cobalt	0.08	-	0.05	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Chromium	0.22	-	0.14	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Mercury	7.5	-	2.8	ng/g	20	F609582	27-Sep-16	6I30009	29-Sep-16	EPA 1631B	
Molybdenum	0.09	-	0.03	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Lead	0.538	-	0.019	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Antimony	ND	-	0.023	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Selenium	ND	-	0.28	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Thallium	0.002	-	0.002	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	U
Vanadium	0.198	-	0.139	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	
Zinc	10.6	-	0.23	mg/kg	5	F608501	17-Sep-16	6I20023	20-Sep-16	FGS-054	

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL1)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.029	-		µg/L	0.030000		95.7				
Boron	1.39	-		µg/L	1.5000		92.5				
Vanadium	0.050	-		µg/L	0.050000		100				
Chromium	0.06	-		µg/L	0.050000		128				
Cobalt	0.06	-		µg/L	0.050000		110				
Arsenic	0.07	-		µg/L	0.075000		88.7				
Selenium	0.29	-		µg/L	0.30000		98.3				
Cadmium	0.010	-		µg/L	0.010000		98.3				
Antimony	0.010	-		µg/L	0.010000		103				
Thallium	0.003	-		µg/L	0.0025000		111				
Lead	0.023	-		µg/L	0.020000		114				

Cal Standard (6I20023-CAL2)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.065	-		µg/L	0.060000		108				
Boron	2.85	-		µg/L	3.0000		94.9				
Vanadium	0.112	-		µg/L	0.10000		112				
Chromium	0.11	-		µg/L	0.10000		115				
Cobalt	0.11	-		µg/L	0.10000		108				
Zinc	0.14	-		µg/L	0.20000		67.9				
Arsenic	0.15	-		µg/L	0.15000		100				
Selenium	0.51	-		µg/L	0.60000		84.9				
Cadmium	0.020	-		µg/L	0.020000		99.9				
Antimony	0.022	-		µg/L	0.020000		110				
Thallium	0.006	-		µg/L	0.0050000		113				
Lead	0.045	-		µg/L	0.040000		113				

Cal Standard (6I20023-CAL3)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.125	-		µg/L	0.12000		104				
Boron	5.81	-		µg/L	6.0000		96.8				
Vanadium	0.211	-		µg/L	0.20000		105				
Chromium	0.24	-		µg/L	0.20000		118				
Cobalt	0.21	-		µg/L	0.20000		106				
Zinc	0.96	-		µg/L	0.40000		240				
Arsenic	0.29	-		µg/L	0.30000		98.0				

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL3)						Prepared & Analyzed: 19-Sep-16					
Selenium	1.18	-		µg/L	1.2000		98.4				
Cadmium	0.041	-		µg/L	0.040000		102				
Antimony	0.043	-		µg/L	0.040000		106				
Thallium	0.012	-		µg/L	0.010000		120				
Lead	0.091	-		µg/L	0.080000		114				

Cal Standard (6I20023-CAL4)						Prepared & Analyzed: 19-Sep-16					
Beryllium	0.247	-		µg/L	0.25000		99.0				
Boron	19.43	-		µg/L	20.000		97.1				
Vanadium	4.988	-		µg/L	5.0000		99.8				
Chromium	4.99	-		µg/L	5.0000		99.7				
Cobalt	2.53	-		µg/L	2.5000		101				
Zinc	12.71	-		µg/L	12.500		102				
Arsenic	4.97	-		µg/L	5.0000		99.4				
Selenium	4.88	-		µg/L	5.0000		97.5				
Cadmium	0.512	-		µg/L	0.50000		102				
Antimony	0.255	-		µg/L	0.25000		102				
Thallium	0.261	-		µg/L	0.25000		104				
Lead	1.323	-		µg/L	1.2500		106				

Cal Standard (6I20023-CAL5)						Prepared & Analyzed: 19-Sep-16					
Beryllium	0.491	-		µg/L	0.50000		98.1				
Boron	37.65	-		µg/L	40.000		94.1				
Vanadium	9.840	-		µg/L	10.000		98.4				
Chromium	9.91	-		µg/L	10.000		99.1				
Cobalt	4.96	-		µg/L	5.0000		99.3				
Zinc	24.71	-		µg/L	25.000		98.9				
Arsenic	9.76	-		µg/L	10.000		97.6				
Selenium	9.59	-		µg/L	10.000		95.9				
Cadmium	0.980	-		µg/L	1.0000		98.0				
Antimony	0.512	-		µg/L	0.50000		102				
Thallium	0.526	-		µg/L	0.50000		105				
Lead	2.690	-		µg/L	2.5000		108				

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL6)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.998	-		µg/L	1.0000		99.8				
Boron	77.20	-		µg/L	80.000		96.5				
Vanadium	19.80	-		µg/L	20.000		99.0				
Chromium	19.74	-		µg/L	20.000		98.7				
Cobalt	9.93	-		µg/L	10.000		99.3				
Zinc	50.71	-		µg/L	50.000		101				
Arsenic	19.59	-		µg/L	20.000		97.9				
Selenium	19.91	-		µg/L	20.000		99.6				
Cadmium	1.963	-		µg/L	2.0000		98.2				
Antimony	1.008	-		µg/L	1.0000		101				
Thallium	1.028	-		µg/L	1.0000		103				
Lead	5.237	-		µg/L	5.0000		105				

Cal Standard (6I20023-CAL7)

Prepared & Analyzed: 19-Sep-16

Beryllium	2.453	-		µg/L	2.5000		98.1				
Boron	191.8	-		µg/L	200.00		95.9				
Vanadium	49.20	-		µg/L	50.000		98.4				
Chromium	48.53	-		µg/L	50.000		97.1				
Cobalt	24.27	-		µg/L	25.000		97.1				
Zinc	122.1	-		µg/L	125.00		97.7				
Arsenic	48.44	-		µg/L	50.000		96.9				
Selenium	48.76	-		µg/L	50.000		97.5				
Cadmium	4.951	-		µg/L	5.0000		99.0				
Antimony	2.508	-		µg/L	2.5000		100				
Thallium	2.549	-		µg/L	2.5000		102				
Lead	12.76	-		µg/L	12.500		102				

Cal Standard (6I20023-CAL8)

Prepared & Analyzed: 19-Sep-16

Beryllium	5.060	-		µg/L	5.0000		101				
Boron	390.2	-		µg/L	400.00		97.6				
Vanadium	99.25	-		µg/L	100.00		99.3				
Chromium	98.55	-		µg/L	100.00		98.6				
Cobalt	49.21	-		µg/L	50.000		98.4				
Zinc	247.5	-		µg/L	250.00		99.0				

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1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CAL8)

Prepared & Analyzed: 19-Sep-16

Arsenic	98.60	-		µg/L	100.00		98.6				
Selenium	96.93	-		µg/L	100.00		96.9				
Cadmium	9.975	-		µg/L	10.000		99.7				
Antimony	5.037	-		µg/L	5.0000		101				
Thallium	5.079	-		µg/L	5.0000		102				
Lead	25.78	-		µg/L	25.000		103				

Cal Standard (6I20023-CAL9)

Prepared & Analyzed: 19-Sep-16

Beryllium	9.983	-		µg/L	10.000		99.8				
Boron	807.3	-		µg/L	800.00		101				
Vanadium	200.6	-		µg/L	200.00		100				
Chromium	201.1	-		µg/L	200.00		101				
Cobalt	100.6	-		µg/L	100.00		101				
Zinc	501.9	-		µg/L	500.00		100				
Arsenic	201.1	-		µg/L	200.00		101				
Selenium	201.9	-		µg/L	200.00		101				
Cadmium	20.03	-		µg/L	20.000		100				
Antimony	9.978	-		µg/L	10.000		99.8				
Thallium	9.944	-		µg/L	10.000		99.4				
Lead	49.51	-		µg/L	50.000		99.0				

Cal Standard (6I20023-CALA)

Prepared & Analyzed: 19-Sep-16

Molybdenum	0.03	-		µg/L	0.029910		97.1				
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Cal Standard (6I20023-CALB)

Prepared & Analyzed: 19-Sep-16


Molybdenum	0.06	-		µg/L	0.059820		96.3				
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Cal Standard (6I20023-CALC)

Prepared & Analyzed: 19-Sep-16

Molybdenum	0.12	-		µg/L	0.11964		98.2				
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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Cal Standard (6I20023-CALD) Prepared & Analyzed: 19-Sep-16

Molybdenum	2.56	-		µg/L	2.4925		103				
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Cal Standard (6I20023-CALE) Prepared & Analyzed: 19-Sep-16

Molybdenum	5.03	-		µg/L	4.9850		101				
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Cal Standard (6I20023-CALF) Prepared & Analyzed: 19-Sep-16

Molybdenum	10.12	-		µg/L	9.9700		102				
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Cal Standard (6I20023-CALG) Prepared & Analyzed: 19-Sep-16

Molybdenum	24.67	-		µg/L	24.925		99.0				
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Cal Standard (6I20023-CALH) Prepared & Analyzed: 19-Sep-16

Molybdenum	50.61	-		µg/L	49.850		102				
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Cal Standard (6I20023-CALI) Prepared & Analyzed: 19-Sep-16

Molybdenum	99.76	-		µg/L	99.700		100				
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Calibration Blank (6I20023-CCB1) Prepared & Analyzed: 19-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	1.03	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	0.03	-		µg/L							
Selenium	-0.008	-		µg/L							U
Molybdenum	0.05	-		µg/L							
Cadmium	0.026	-		µg/L							
Antimony	0.004	-		µg/L							
Thallium	0.0007	-		µg/L							
Lead	-0.00008	-		µg/L							U

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: pond 6 snails Project Manager: Jeff Levensgood PhD, CWB	Reported: 30-Sep-16 15:27
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB2)				Prepared & Analyzed: 19-Sep-16							
Beryllium	0.0008	-	µg/L								
Boron	1.05	-	µg/L								
Vanadium	0.0008	-	µg/L								
Chromium	0.008	-	µg/L								
Cobalt	0.002	-	µg/L								
Zinc	-0.04	-	µg/L								U
Arsenic	0.008	-	µg/L								
Selenium	0.17	-	µg/L								
Molybdenum	0.03	-	µg/L								
Cadmium	0.001	-	µg/L								
Antimony	0.004	-	µg/L								
Thallium	0.0004	-	µg/L								
Lead	-0.0003	-	µg/L								U

Calibration Blank (6I20023-CCB3)				Prepared & Analyzed: 19-Sep-16							
Beryllium	0.0009	-	µg/L								
Boron	1.25	-	µg/L								
Vanadium	0.005	-	µg/L								
Chromium	0.01	-	µg/L								
Cobalt	0.003	-	µg/L								
Zinc	-0.08	-	µg/L								U
Arsenic	0.01	-	µg/L								
Selenium	0.10	-	µg/L								
Molybdenum	0.03	-	µg/L								
Cadmium	0.002	-	µg/L								
Antimony	0.005	-	µg/L								
Thallium	0.0004	-	µg/L								
Lead	-0.00005	-	µg/L								U

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB4)

Prepared & Analyzed: 19-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	1.07	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.009	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.18	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0008	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.0003	-		µg/L							
Lead	-0.0001	-		µg/L							U

Calibration Blank (6I20023-CCB5)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	1.54	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.005	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.009	-		µg/L							
Selenium	0.09	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0003	-		µg/L							
Antimony	0.007	-		µg/L							
Thallium	0.0003	-		µg/L							
Lead	0.00009	-		µg/L							

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Champaign ILLINOIS, 61820

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Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB6)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0007	-		µg/L							
Boron	1.66	-		µg/L							
Vanadium	0.004	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.08	-		µg/L							U
Arsenic	0.02	-		µg/L							
Selenium	0.07	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0004	-		µg/L							U
Antimony	0.002	-		µg/L							
Thallium	0.0002	-		µg/L							
Lead	0.0002	-		µg/L							

Calibration Blank (6I20023-CCB7)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	1.38	-		µg/L							
Vanadium	0.010	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.06	-		µg/L							U
Arsenic	0.02	-		µg/L							
Selenium	0.28	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0007	-		µg/L							
Antimony	0.110	-		µg/L							
Thallium	0.003	-		µg/L							
Lead	0.0006	-		µg/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCB8)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	1.06	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.07	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.008	-		µg/L							
Thallium	0.0005	-		µg/L							
Lead	0.000	-		µg/L							U

Calibration Blank (6I20023-CCB9)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0004	-		µg/L							
Boron	0.81	-		µg/L							
Vanadium	0.003	-		µg/L							
Chromium	0.02	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.10	-		µg/L							U
Arsenic	0.007	-		µg/L							
Selenium	-0.01	-		µg/L							U
Molybdenum	0.02	-		µg/L							
Cadmium	0.0006	-		µg/L							
Antimony	0.006	-		µg/L							
Thallium	0.0006	-		µg/L							
Lead	0.0002	-		µg/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBA)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.001	-		µg/L							
Boron	1.18	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	-0.002	-		µg/L							U
Selenium	0.18	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.0002	-		µg/L							U
Antimony	0.005	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.00001	-		µg/L							U

Calibration Blank (6I20023-CCBB)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	0.98	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.009	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	-0.02	-		µg/L							U
Molybdenum	0.05	-		µg/L							
Cadmium	-0.003	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0002	-		µg/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBC)				Prepared: 19-Sep-16 Analyzed: 20-Sep-16							
Beryllium	0.0004	-		µg/L							
Boron	0.79	-		µg/L							
Vanadium	0.005	-		µg/L							
Chromium	0.02	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.003	-		µg/L							
Selenium	0.16	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.0007	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBD)				Prepared: 19-Sep-16 Analyzed: 20-Sep-16							
Beryllium	0.001	-		µg/L							
Boron	1.14	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.003	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.08	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.001	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0003	-		µg/L							

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Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBE)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.001	-		µg/L							
Boron	1.03	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.008	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.12	-		µg/L							U
Arsenic	0.006	-		µg/L							
Selenium	0.03	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.004	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBF)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0005	-		µg/L							
Boron	0.84	-		µg/L							
Vanadium	0.004	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.13	-		µg/L							U
Arsenic	-0.02	-		µg/L							U
Selenium	0.07	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.002	-		µg/L							U
Antimony	0.00005	-		µg/L							
Thallium	0.002	-		µg/L							
Lead	-0.00009	-		µg/L							U

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBG)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16


Beryllium	0.0004	-		µg/L							
Boron	0.67	-		µg/L							
Vanadium	0.0007	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.10	-		µg/L							U
Arsenic	0.01	-		µg/L							
Selenium	0.10	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	0.0007	-		µg/L							
Antimony	0.0003	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.0001	-		µg/L							

Calibration Blank (6I20023-CCBH)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	0.0006	-		µg/L							
Boron	0.67	-		µg/L							
Vanadium	0.0003	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	-0.01	-		µg/L							U
Selenium	0.06	-		µg/L							
Molybdenum	0.03	-		µg/L							
Cadmium	-0.003	-		µg/L							U
Antimony	0.0001	-		µg/L							
Thallium	0.001	-		µg/L							
Lead	0.000	-		µg/L							U

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Project Number: pond 6 snails
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Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Blank (6I20023-CCBI)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16


Beryllium	0.0006	-		µg/L							
Boron	0.70	-		µg/L							
Vanadium	0.001	-		µg/L							
Chromium	0.01	-		µg/L							
Cobalt	0.002	-		µg/L							
Zinc	-0.11	-		µg/L							U
Arsenic	0.0005	-		µg/L							
Selenium	0.05	-		µg/L							
Molybdenum	0.02	-		µg/L							
Cadmium	-0.002	-		µg/L							U
Antimony	-0.00009	-		µg/L							U
Thallium	0.001	-		µg/L							
Lead	0.00007	-		µg/L							

Calibration Check (6I20023-CCV1)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.062	-		µg/L	0.99940		106	65-135			
Boron	102.9	-		µg/L	100.00		103	65-135			
Vanadium	51.32	-		µg/L	49.980		103	85-115			
Chromium	49.22	-		µg/L	50.000		98.4	85-115			
Cobalt	19.79	-		µg/L	20.020		98.8	85-115			
Zinc	54.31	-		µg/L	50.000		109	75-125			
Arsenic	51.37	-		µg/L	50.000		103	85-115			
Selenium	53.41	-		µg/L	50.000		107	80-120			
Molybdenum	10.47	-		µg/L	10.002		105	85-115			
Cadmium	5.187	-		µg/L	5.0020		104	85-115			
Antimony	1.045	-		µg/L	0.99960		105	85-115			
Thallium	1.001	-		µg/L	1.0004		100	85-115			
Lead	10.16	-		µg/L	10.000		102	80-120			

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Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV2)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.101	-		µg/L	0.99940		110	65-135			
Boron	104.5	-		µg/L	100.00		104	65-135			
Vanadium	50.33	-		µg/L	49.980		101	85-115			
Chromium	48.15	-		µg/L	50.000		96.3	85-115			
Cobalt	19.58	-		µg/L	20.020		97.8	85-115			
Zinc	52.34	-		µg/L	50.000		105	75-125			
Arsenic	51.35	-		µg/L	50.000		103	85-115			
Selenium	53.64	-		µg/L	50.000		107	80-120			
Molybdenum	10.53	-		µg/L	10.002		105	85-115			
Cadmium	5.178	-		µg/L	5.0020		104	85-115			
Antimony	1.055	-		µg/L	0.99960		106	85-115			
Thallium	1.020	-		µg/L	1.0004		102	85-115			
Lead	10.38	-		µg/L	10.000		104	80-120			

Calibration Check (6I20023-CCV3)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.074	-		µg/L	0.99940		107	65-135			
Boron	104.8	-		µg/L	100.00		105	65-135			
Vanadium	47.96	-		µg/L	49.980		96.0	85-115			
Chromium	47.66	-		µg/L	50.000		95.3	85-115			
Cobalt	19.47	-		µg/L	20.020		97.2	85-115			
Zinc	51.97	-		µg/L	50.000		104	75-125			
Arsenic	50.76	-		µg/L	50.000		102	85-115			
Selenium	53.08	-		µg/L	50.000		106	80-120			
Molybdenum	10.54	-		µg/L	10.002		105	85-115			
Cadmium	5.179	-		µg/L	5.0020		104	85-115			
Antimony	1.092	-		µg/L	0.99960		109	85-115			
Thallium	0.999	-		µg/L	1.0004		99.9	85-115			
Lead	10.28	-		µg/L	10.000		103	80-120			

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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV4)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.086	-		µg/L	0.99940		109	65-135			
Boron	102.1	-		µg/L	100.00		102	65-135			
Vanadium	50.07	-		µg/L	49.980		100	85-115			
Chromium	47.98	-		µg/L	50.000		96.0	85-115			
Cobalt	19.47	-		µg/L	20.020		97.3	85-115			
Zinc	51.97	-		µg/L	50.000		104	75-125			
Arsenic	50.91	-		µg/L	50.000		102	85-115			
Selenium	52.58	-		µg/L	50.000		105	80-120			
Molybdenum	10.63	-		µg/L	10.002		106	85-115			
Cadmium	5.105	-		µg/L	5.0020		102	85-115			
Antimony	1.086	-		µg/L	0.99960		109	85-115			
Thallium	1.000	-		µg/L	1.0004		100	85-115			
Lead	10.16	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV5)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.084	-		µg/L	0.99940		108	65-135			
Boron	101.9	-		µg/L	100.00		102	65-135			
Vanadium	47.68	-		µg/L	49.980		95.4	85-115			
Chromium	48.49	-		µg/L	50.000		97.0	85-115			
Cobalt	19.56	-		µg/L	20.020		97.7	85-115			
Zinc	52.30	-		µg/L	50.000		105	75-125			
Arsenic	50.87	-		µg/L	50.000		102	85-115			
Selenium	53.96	-		µg/L	50.000		108	80-120			
Molybdenum	10.70	-		µg/L	10.002		107	85-115			
Cadmium	5.209	-		µg/L	5.0020		104	85-115			
Antimony	1.088	-		µg/L	0.99960		109	85-115			
Thallium	1.008	-		µg/L	1.0004		101	85-115			
Lead	10.21	-		µg/L	10.000		102	80-120			

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University Of Illinois - Natural History Survey
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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV6)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.054	-		µg/L	0.99940		105	65-135			
Boron	104.4	-		µg/L	100.00		104	65-135			
Vanadium	54.07	-		µg/L	49.980		108	85-115			
Chromium	48.13	-		µg/L	50.000		96.3	85-115			
Cobalt	19.63	-		µg/L	20.020		98.1	85-115			
Zinc	51.49	-		µg/L	50.000		103	75-125			
Arsenic	50.64	-		µg/L	50.000		101	85-115			
Selenium	52.33	-		µg/L	50.000		105	80-120			
Molybdenum	10.83	-		µg/L	10.002		108	85-115			
Cadmium	5.237	-		µg/L	5.0020		105	85-115			
Antimony	1.084	-		µg/L	0.99960		108	85-115			
Thallium	1.009	-		µg/L	1.0004		101	85-115			
Lead	10.24	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV7)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.109	-		µg/L	0.99940		111	65-135			
Boron	108.7	-		µg/L	100.00		109	65-135			
Vanadium	48.99	-		µg/L	49.980		98.0	85-115			
Chromium	49.06	-		µg/L	50.000		98.1	85-115			
Cobalt	19.50	-		µg/L	20.020		97.4	85-115			
Zinc	52.19	-		µg/L	50.000		104	75-125			
Arsenic	51.30	-		µg/L	50.000		103	85-115			
Selenium	54.05	-		µg/L	50.000		108	80-120			
Molybdenum	10.54	-		µg/L	10.002		105	85-115			
Cadmium	5.088	-		µg/L	5.0020		102	85-115			
Antimony	1.768	-		µg/L	0.99960		177	85-115			
Thallium	1.007	-		µg/L	1.0004		101	85-115			
Lead	9.994	-		µg/L	10.000		99.9	80-120			

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCV8)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16


Beryllium	1.036	-		µg/L	0.99940		104	65-135			
Boron	98.88	-		µg/L	100.00		98.9	65-135			
Vanadium	49.57	-		µg/L	49.980		99.2	85-115			
Chromium	49.19	-		µg/L	50.000		98.4	85-115			
Cobalt	19.60	-		µg/L	20.020		97.9	85-115			
Zinc	52.85	-		µg/L	50.000		106	75-125			
Arsenic	50.83	-		µg/L	50.000		102	85-115			
Selenium	52.64	-		µg/L	50.000		105	80-120			
Molybdenum	10.57	-		µg/L	10.002		106	85-115			
Cadmium	5.208	-		µg/L	5.0020		104	85-115			
Antimony	1.066	-		µg/L	0.99960		107	85-115			
Thallium	1.010	-		µg/L	1.0004		101	85-115			
Lead	10.21	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCV9)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.036	-		µg/L	0.99940		104	65-135			
Boron	102.0	-		µg/L	100.00		102	65-135			
Vanadium	50.12	-		µg/L	49.980		100	85-115			
Chromium	48.34	-		µg/L	50.000		96.7	85-115			
Cobalt	19.76	-		µg/L	20.020		98.7	85-115			
Zinc	52.76	-		µg/L	50.000		106	75-125			
Arsenic	51.53	-		µg/L	50.000		103	85-115			
Selenium	53.64	-		µg/L	50.000		107	80-120			
Molybdenum	10.67	-		µg/L	10.002		107	85-115			
Cadmium	5.193	-		µg/L	5.0020		104	85-115			
Antimony	1.038	-		µg/L	0.99960		104	85-115			
Thallium	1.003	-		µg/L	1.0004		100	85-115			
Lead	10.13	-		µg/L	10.000		101	80-120			

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University Of Illinois - Natural History Survey
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Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVA)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.042	-		µg/L	0.99940		104	65-135			
Boron	98.95	-		µg/L	100.00		99.0	65-135			
Vanadium	48.57	-		µg/L	49.980		97.2	85-115			
Chromium	49.00	-		µg/L	50.000		98.0	85-115			
Cobalt	19.67	-		µg/L	20.020		98.2	85-115			
Zinc	52.15	-		µg/L	50.000		104	75-125			
Arsenic	51.19	-		µg/L	50.000		102	85-115			
Selenium	51.63	-		µg/L	50.000		103	80-120			
Molybdenum	10.69	-		µg/L	10.002		107	85-115			
Cadmium	5.196	-		µg/L	5.0020		104	85-115			
Antimony	1.041	-		µg/L	0.99960		104	85-115			
Thallium	1.005	-		µg/L	1.0004		100	85-115			
Lead	10.17	-		µg/L	10.000		102	80-120			

Calibration Check (6I20023-CCVB)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.032	-		µg/L	0.99940		103	65-135			
Boron	97.13	-		µg/L	100.00		97.1	65-135			
Vanadium	51.50	-		µg/L	49.980		103	85-115			
Chromium	47.87	-		µg/L	50.000		95.7	85-115			
Cobalt	19.61	-		µg/L	20.020		97.9	85-115			
Zinc	52.68	-		µg/L	50.000		105	75-125			
Arsenic	50.92	-		µg/L	50.000		102	85-115			
Selenium	51.37	-		µg/L	50.000		103	80-120			
Molybdenum	10.93	-		µg/L	10.002		109	85-115			
Cadmium	5.294	-		µg/L	5.0020		106	85-115			
Antimony	1.075	-		µg/L	0.99960		108	85-115			
Thallium	1.016	-		µg/L	1.0004		102	85-115			
Lead	10.27	-		µg/L	10.000		103	80-120			

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVC)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.028	-		µg/L	0.99940		103	65-135			
Boron	97.11	-		µg/L	100.00		97.1	65-135			
Vanadium	50.07	-		µg/L	49.980		100	85-115			
Chromium	47.88	-		µg/L	50.000		95.8	85-115			
Cobalt	19.44	-		µg/L	20.020		97.1	85-115			
Zinc	51.66	-		µg/L	50.000		103	75-125			
Arsenic	50.28	-		µg/L	50.000		101	85-115			
Selenium	50.78	-		µg/L	50.000		102	80-120			
Molybdenum	10.64	-		µg/L	10.002		106	85-115			
Cadmium	5.236	-		µg/L	5.0020		105	85-115			
Antimony	1.063	-		µg/L	0.99960		106	85-115			
Thallium	1.009	-		µg/L	1.0004		101	85-115			
Lead	10.29	-		µg/L	10.000		103	80-120			

Calibration Check (6I20023-CCVD)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.027	-		µg/L	0.99940		103	65-135			
Boron	98.01	-		µg/L	100.00		98.0	65-135			
Vanadium	50.57	-		µg/L	49.980		101	85-115			
Chromium	47.88	-		µg/L	50.000		95.8	85-115			
Cobalt	19.46	-		µg/L	20.020		97.2	85-115			
Zinc	52.67	-		µg/L	50.000		105	75-125			
Arsenic	50.94	-		µg/L	50.000		102	85-115			
Selenium	52.57	-		µg/L	50.000		105	80-120			
Molybdenum	10.98	-		µg/L	10.002		110	85-115			
Cadmium	5.349	-		µg/L	5.0020		107	85-115			
Antimony	1.086	-		µg/L	0.99960		109	85-115			
Thallium	1.026	-		µg/L	1.0004		103	85-115			
Lead	10.36	-		µg/L	10.000		104	80-120			

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Project Manager: Jeff Levensgood PhD, CWB

Reported:
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Quality Control Data

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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVE)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16


Beryllium	1.040	-		µg/L	0.99940		104	65-135			
Boron	100.3	-		µg/L	100.00		100	65-135			
Vanadium	49.98	-		µg/L	49.980		100	85-115			
Chromium	48.97	-		µg/L	50.000		97.9	85-115			
Cobalt	19.56	-		µg/L	20.020		97.7	85-115			
Zinc	53.19	-		µg/L	50.000		106	75-125			
Arsenic	51.65	-		µg/L	50.000		103	85-115			
Selenium	52.76	-		µg/L	50.000		106	80-120			
Molybdenum	10.79	-		µg/L	10.002		108	85-115			
Cadmium	5.327	-		µg/L	5.0020		106	85-115			
Antimony	1.066	-		µg/L	0.99960		107	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.37	-		µg/L	10.000		104	80-120			

Calibration Check (6I20023-CCVF)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.011	-		µg/L	0.99940		101	65-135			
Boron	97.69	-		µg/L	100.00		97.7	65-135			
Vanadium	48.34	-		µg/L	49.980		96.7	85-115			
Chromium	48.56	-		µg/L	50.000		97.1	85-115			
Cobalt	19.78	-		µg/L	20.020		98.8	85-115			
Zinc	53.41	-		µg/L	50.000		107	75-125			
Arsenic	50.90	-		µg/L	50.000		102	85-115			
Selenium	52.10	-		µg/L	50.000		104	80-120			
Molybdenum	10.65	-		µg/L	10.002		107	85-115			
Cadmium	5.290	-		µg/L	5.0020		106	85-115			
Antimony	1.048	-		µg/L	0.99960		105	85-115			
Thallium	1.021	-		µg/L	1.0004		102	85-115			
Lead	10.34	-		µg/L	10.000		103	80-120			

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Quality Control Data

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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVG)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.041	-		µg/L	0.99940		104	65-135			
Boron	96.87	-		µg/L	100.00		96.9	65-135			
Vanadium	50.43	-		µg/L	49.980		101	85-115			
Chromium	48.53	-		µg/L	50.000		97.1	85-115			
Cobalt	19.60	-		µg/L	20.020		97.9	85-115			
Zinc	52.77	-		µg/L	50.000		106	75-125			
Arsenic	51.41	-		µg/L	50.000		103	85-115			
Selenium	52.66	-		µg/L	50.000		105	80-120			
Molybdenum	10.92	-		µg/L	10.002		109	85-115			
Cadmium	5.301	-		µg/L	5.0020		106	85-115			
Antimony	1.075	-		µg/L	0.99960		108	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.49	-		µg/L	10.000		105	80-120			

Calibration Check (6I20023-CCVH)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.041	-		µg/L	0.99940		104	65-135			
Boron	97.46	-		µg/L	100.00		97.5	65-135			
Vanadium	46.58	-		µg/L	49.980		93.2	85-115			
Chromium	47.81	-		µg/L	50.000		95.6	85-115			
Cobalt	19.30	-		µg/L	20.020		96.4	85-115			
Zinc	53.10	-		µg/L	50.000		106	75-125			
Arsenic	51.31	-		µg/L	50.000		103	85-115			
Selenium	52.16	-		µg/L	50.000		104	80-120			
Molybdenum	10.89	-		µg/L	10.002		109	85-115			
Cadmium	5.307	-		µg/L	5.0020		106	85-115			
Antimony	1.067	-		µg/L	0.99960		107	85-115			
Thallium	1.024	-		µg/L	1.0004		102	85-115			
Lead	10.34	-		µg/L	10.000		103	80-120			

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Project Manager: Jeff Levensgood PhD, CWB

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Batch 6I20023 - F608501

Calibration Check (6I20023-CCVI)

Prepared: 19-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.025	-		µg/L	0.99940		103	65-135			
Boron	97.40	-		µg/L	100.00		97.4	65-135			
Vanadium	50.22	-		µg/L	49.980		100	85-115			
Chromium	48.63	-		µg/L	50.000		97.3	85-115			
Cobalt	19.26	-		µg/L	20.020		96.2	85-115			
Zinc	52.74	-		µg/L	50.000		105	75-125			
Arsenic	50.94	-		µg/L	50.000		102	85-115			
Selenium	53.39	-		µg/L	50.000		107	80-120			
Molybdenum	10.86	-		µg/L	10.002		109	85-115			
Cadmium	5.312	-		µg/L	5.0020		106	85-115			
Antimony	1.093	-		µg/L	0.99960		109	85-115			
Thallium	1.026	-		µg/L	1.0004		103	85-115			
Lead	10.49	-		µg/L	10.000		105	80-120			

Initial Cal Blank (6I20023-ICB1)

Prepared & Analyzed: 19-Sep-16

Beryllium	-0.0001	-		µg/L							U
Boron	1.05	-		µg/L							
Vanadium	0.002	-		µg/L							
Chromium	0.002	-		µg/L							
Cobalt	0.001	-		µg/L							
Zinc	-0.09	-		µg/L							U
Arsenic	-0.006	-		µg/L							U
Selenium	0.07	-		µg/L							
Molybdenum	0.04	-		µg/L							
Cadmium	-0.001	-		µg/L							U
Antimony	0.005	-		µg/L							
Thallium	0.0004	-		µg/L							
Lead	-0.0003	-		µg/L							U

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Patrick Garcia-Strickland, Laboratory Director

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I20023 - F608501

Initial Cal Check (6I20023-ICV1)

Prepared & Analyzed: 19-Sep-16

Beryllium	1.075	-		µg/L	0.99940		108	65-135			
Boron	103.0	-		µg/L	100.00		103	65-135			
Vanadium	53.02	-		µg/L	49.980		106	85-115			
Chromium	48.92	-		µg/L	50.000		97.8	85-115			
Cobalt	19.64	-		µg/L	20.020		98.1	85-115			
Zinc	52.55	-		µg/L	50.000		105	75-125			
Arsenic	51.24	-		µg/L	50.000		102	85-115			
Selenium	53.53	-		µg/L	50.000		107	80-120			
Molybdenum	10.49	-		µg/L	10.002		105	85-115			
Cadmium	5.160	-		µg/L	5.0020		103	85-115			
Antimony	1.045	-		µg/L	0.99960		105	85-115			
Thallium	0.996	-		µg/L	1.0004		99.6	85-115			
Lead	10.20	-		µg/L	10.000		102	80-120			

Batch 6I30009 - F609582

Cal Standard (6I30009-CAL1)

Prepared & Analyzed: 29-Sep-16

Mercury	0.5	-		ng/L	0.50100		105				
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Cal Standard (6I30009-CAL2)

Prepared & Analyzed: 29-Sep-16

Mercury	1.0	-		ng/L	1.0020		100				
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Cal Standard (6I30009-CAL3)

Prepared & Analyzed: 29-Sep-16

Mercury	4.9	-		ng/L	5.0100		97.3				
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Cal Standard (6I30009-CAL4)

Prepared & Analyzed: 29-Sep-16

Mercury	19.8	-		ng/L	20.040		98.9				
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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
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 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 snails
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I30009 - F609582											
Cal Standard (6I30009-CAL5)					Prepared & Analyzed: 29-Sep-16						
Mercury	39.1	-		ng/L	40.080		97.6				
Calibration Blank (6I30009-CCB1)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.03	-		ng/L							
Calibration Blank (6I30009-CCB2)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.02	-		ng/L							
Calibration Blank (6I30009-CCB3)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.03	-		ng/L							
Calibration Blank (6I30009-CCB4)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.03	-		ng/L							
Calibration Blank (6I30009-CCB5)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.05	-		ng/L							
Calibration Blank (6I30009-CCB6)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.06	-		ng/L							
Calibration Blank (6I30009-CCB7)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.05	-		ng/L							
Calibration Blank (6I30009-CCB8)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.09	-		ng/L							
Calibration Blank (6I30009-CCB9)					Prepared & Analyzed: 29-Sep-16						
Mercury	0.05	-		ng/L							

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30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6I30009 - F609582											
Calibration Blank (6I30009-CCBA) Prepared & Analyzed: 29-Sep-16											
Mercury	0.07	-		ng/L							
Calibration Blank (6I30009-CCBB) Prepared & Analyzed: 29-Sep-16											
Mercury	0.09	-		ng/L							
Calibration Check (6I30009-CCV1) Prepared & Analyzed: 29-Sep-16											
Mercury	5.0	-		ng/L	5.0000		101	77-123			
Calibration Check (6I30009-CCV2) Prepared & Analyzed: 29-Sep-16											
Mercury	5.2	-		ng/L	5.0000		103	77-123			
Calibration Check (6I30009-CCV3) Prepared & Analyzed: 29-Sep-16											
Mercury	5.1	-		ng/L	5.0000		101	77-123			
Calibration Check (6I30009-CCV4) Prepared & Analyzed: 29-Sep-16											
Mercury	5.0	-		ng/L	5.0000		101	77-123			
Calibration Check (6I30009-CCV5) Prepared & Analyzed: 29-Sep-16											
Mercury	5.2	-		ng/L	5.0000		104	77-123			
Calibration Check (6I30009-CCV6) Prepared & Analyzed: 29-Sep-16											
Mercury	5.3	-		ng/L	5.0000		105	77-123			
Calibration Check (6I30009-CCV7) Prepared & Analyzed: 29-Sep-16											
Mercury	5.3	-		ng/L	5.0000		105	77-123			
Calibration Check (6I30009-CCV8) Prepared & Analyzed: 29-Sep-16											
Mercury	5.1	-		ng/L	5.0000		103	77-123			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6I30009 - F609582

Calibration Check (6I30009-CCV9) Prepared & Analyzed: 29-Sep-16											
Mercury	5.1	-		ng/L	5.0000		101	77-123			
Calibration Check (6I30009-CCVA) Prepared & Analyzed: 29-Sep-16											
Mercury	5.4	-		ng/L	5.0000		108	77-123			
Calibration Check (6I30009-CCVB) Prepared & Analyzed: 29-Sep-16											
Mercury	5.2	-		ng/L	5.0000		104	77-123			
Instrument Blank (6I30009-IBL1) Prepared & Analyzed: 29-Sep-16											
Mercury	ND	-	0.2	ng/L							U
Instrument Blank (6I30009-IBL2) Prepared & Analyzed: 29-Sep-16											
Mercury	ND	-	0.2	ng/L							U
Instrument Blank (6I30009-IBL3) Prepared & Analyzed: 29-Sep-16											
Mercury	ND	-	0.2	ng/L							U
Initial Cal Check (6I30009-ICV1) Prepared & Analyzed: 29-Sep-16											
Mercury	5.1	-		ng/L	5.0000		103	77-123			

Batch F608501 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F608501-BLK1) Prepared: 17-Sep-16 Analyzed: 20-Sep-16											
Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.150	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Molybdenum	ND	-	0.03	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608501 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F608501-BLK2)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	ND	-	0.080	mg/kg							U
Boron	ND	-	2.40	mg/kg							U
Vanadium	ND	-	0.150	mg/kg							U
Chromium	ND	-	0.15	mg/kg							U
Cobalt	ND	-	0.05	mg/kg							U
Zinc	ND	-	0.25	mg/kg							U
Arsenic	ND	-	0.20	mg/kg							U
Selenium	ND	-	0.30	mg/kg							U
Molybdenum	ND	-	0.03	mg/kg							U
Cadmium	ND	-	0.010	mg/kg							U
Antimony	ND	-	0.025	mg/kg							U
Thallium	ND	-	0.002	mg/kg							U
Lead	ND	-	0.020	mg/kg							U

LCS (F608501-BS1)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	4.025	-	0.080	mg/kg	4.0010		101	65-135			
Boron	49.04	-	2.40	mg/kg	50.000		98.1	65-135			
Vanadium	5.628	-	0.150	mg/kg	4.9990		113	85-115			
Chromium	5.13	-	0.15	mg/kg	5.0010		103	85-115			
Cobalt	4.13	-	0.05	mg/kg	4.0000		103	85-115			
Zinc	5.28	-	0.25	mg/kg	5.0020		105	75-125			
Arsenic	5.13	-	0.20	mg/kg	5.0010		103	85-115			
Selenium	5.00	-	0.30	mg/kg	5.0020		99.9	80-120			
Molybdenum	5.40	-	0.03	mg/kg	5.0000		108	85-115			
Cadmium	4.214	-	0.010	mg/kg	4.0030		105	85-115			
Antimony	4.241	-	0.025	mg/kg	3.9990		106	85-115			
Thallium	4.436	-	0.002	mg/kg	3.9980		111	80-120			
Lead	5.615	-	0.020	mg/kg	5.0010		112	80-120			

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Champaign ILLINOIS, 61820

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Project Number: pond 6 snails
Project Manager: Jeff Levensgood PhD, CWB

Reported:
30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608501 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

LCS Dup (F608501-BSD1)

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	3.999	-	0.080	mg/kg	4.0010		99.9	65-135	0.669	20	
Boron	49.33	-	2.40	mg/kg	50.000		98.7	65-135	0.595	20	
Vanadium	5.017	-	0.150	mg/kg	4.9990		100	85-115	11.5	20	
Chromium	5.02	-	0.15	mg/kg	5.0010		100	85-115	2.27	20	
Cobalt	4.04	-	0.05	mg/kg	4.0000		101	85-115	2.23	20	
Zinc	5.08	-	0.25	mg/kg	5.0020		102	75-125	3.74	20	
Arsenic	5.02	-	0.20	mg/kg	5.0010		100	85-115	2.09	20	
Selenium	4.84	-	0.30	mg/kg	5.0020		96.8	80-120	3.14	20	
Molybdenum	5.27	-	0.03	mg/kg	5.0000		105	85-115	2.52	20	
Cadmium	4.097	-	0.010	mg/kg	4.0030		102	85-115	2.81	20	
Antimony	4.210	-	0.025	mg/kg	3.9990		105	85-115	0.746	20	
Thallium	4.336	-	0.002	mg/kg	3.9980		108	80-120	2.29	20	
Lead	5.447	-	0.020	mg/kg	5.0010		109	80-120	3.03	20	


Matrix Spike (F608501-MS1)

Source: 1608278-01

Prepared: 17-Sep-16 Analyzed: 20-Sep-16

Beryllium	1.043	-	0.073	mg/kg	0.90777	ND	115	60-140			AS
Boron	78.37	-	2.18	mg/kg	72.622	0.85	107	60-140			AS
Vanadium	21.24	-	0.136	mg/kg	18.155	0.345	115	75-125			AS
Chromium	21.17	-	0.14	mg/kg	18.155	0.21	115	75-125			AS
Cobalt	10.81	-	0.05	mg/kg	9.0777	0.18	117	75-125			AS
Zinc	66.20	-	0.23	mg/kg	45.389	11.87	120	65-135			AS
Arsenic	22.88	-	0.18	mg/kg	18.155	1.32	119	80-120			AS
Selenium	22.18	-	0.27	mg/kg	18.155	0.54	119	65-135			AS
Molybdenum	11.18	-	0.03	mg/kg	9.0777	0.20	121	75-125			AS
Cadmium	2.276	-	0.009	mg/kg	1.8155	0.079	121	75-125			AS
Antimony	1.031	-	0.023	mg/kg	0.90777	0.010	113	80-120			AS
Thallium	1.078	-	0.002	mg/kg	0.90777	0.005	118	80-120			AS
Lead	5.631	-	0.018	mg/kg	4.5389	0.225	119	75-125			AS

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30-Sep-16 15:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608501 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F608501-MS2)	Source: 1608278-02			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	1.136	-	0.078	mg/kg	0.97924	ND	116	60-140			AS
Boron	84.37	-	2.35	mg/kg	78.339	1.79	105	60-140			AS
Vanadium	23.13	-	0.147	mg/kg	19.585	0.788	114	75-125			AS
Chromium	23.29	-	0.15	mg/kg	19.585	0.62	116	75-125			AS
Cobalt	11.68	-	0.05	mg/kg	9.7924	0.33	116	75-125			AS
Zinc	73.56	-	0.24	mg/kg	48.962	15.29	119	65-135			AS
Arsenic	24.86	-	0.20	mg/kg	19.585	1.63	119	80-120			AS
Selenium	23.70	-	0.29	mg/kg	19.585	0.77	117	65-135			AS
Molybdenum	11.99	-	0.03	mg/kg	9.7924	0.24	120	75-125			AS
Cadmium	2.381	-	0.010	mg/kg	1.9585	0.068	118	75-125			AS
Antimony	1.117	-	0.024	mg/kg	0.97924	ND	114	80-120			AS
Thallium	1.162	-	0.002	mg/kg	0.97924	0.010	118	80-120			AS
Lead	6.214	-	0.020	mg/kg	4.8962	0.452	118	75-125			AS

Matrix Spike Dup (F608501-MSD1)	Source: 1608278-01			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	1.062	-	0.073	mg/kg	0.90777	ND	117	60-140	1.75	20	AS
Boron	78.97	-	2.18	mg/kg	72.622	0.85	108	60-140	0.777	20	AS
Vanadium	21.24	-	0.136	mg/kg	18.155	0.345	115	75-125	0.0141	20	AS
Chromium	20.82	-	0.14	mg/kg	18.155	0.21	114	75-125	1.68	20	AS
Cobalt	10.61	-	0.05	mg/kg	9.0777	0.18	115	75-125	1.89	20	AS
Zinc	65.23	-	0.23	mg/kg	45.389	11.87	118	65-135	1.82	20	AS
Arsenic	22.45	-	0.18	mg/kg	18.155	1.32	116	80-120	1.98	20	AS
Selenium	21.62	-	0.27	mg/kg	18.155	0.54	116	65-135	2.59	20	AS
Molybdenum	11.08	-	0.03	mg/kg	9.0777	0.20	120	75-125	0.959	20	AS
Cadmium	2.252	-	0.009	mg/kg	1.8155	0.079	120	75-125	1.12	20	AS
Antimony	1.022	-	0.023	mg/kg	0.90777	0.010	112	80-120	0.894	20	AS
Thallium	1.102	-	0.002	mg/kg	0.90777	0.005	121	80-120	2.21	20	AS, QM-13
Lead	5.649	-	0.018	mg/kg	4.5389	0.225	119	75-125	0.322	20	AS

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Project Manager: Jeff Levensgood PhD, CWB

Reported:
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F608501 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike Dup (F608501-MSD2)	Source: 1608278-02			Prepared: 17-Sep-16 Analyzed: 20-Sep-16							
Beryllium	1.147	-	0.078	mg/kg	0.97924	ND	117	60-140	0.954	20	AS
Boron	84.19	-	2.35	mg/kg	78.339	1.79	105	60-140	0.223	20	AS
Vanadium	23.03	-	0.147	mg/kg	19.585	0.788	114	75-125	0.451	20	AS
Chromium	23.35	-	0.15	mg/kg	19.585	0.62	116	75-125	0.282	20	AS
Cobalt	11.75	-	0.05	mg/kg	9.7924	0.33	117	75-125	0.601	20	AS
Zinc	74.18	-	0.24	mg/kg	48.962	15.29	120	65-135	1.06	20	AS
Arsenic	24.98	-	0.20	mg/kg	19.585	1.63	119	80-120	0.500	20	AS
Selenium	24.27	-	0.29	mg/kg	19.585	0.77	120	65-135	2.45	20	AS
Molybdenum	12.04	-	0.03	mg/kg	9.7924	0.24	120	75-125	0.369	20	AS
Cadmium	2.450	-	0.010	mg/kg	1.9585	0.068	122	75-125	2.95	20	AS
Antimony	1.127	-	0.024	mg/kg	0.97924	ND	115	80-120	0.870	20	AS
Thallium	1.191	-	0.002	mg/kg	0.97924	0.010	121	80-120	2.53	20	AS, QM-13
Lead	6.356	-	0.020	mg/kg	4.8962	0.452	121	75-125	2.43	20	AS

Batch F609582 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Blank (F609582-BLK1)	Prepared: 27-Sep-16 Analyzed: 29-Sep-16											
Mercury	ND	-	3.0	ng/g								U
Blank (F609582-BLK2)	Prepared: 27-Sep-16 Analyzed: 29-Sep-16											
Mercury	ND	-	3.0	ng/g								U
LCS (F609582-BS1)	Prepared: 27-Sep-16 Analyzed: 29-Sep-16											
Mercury	275.8	-	75.0	ng/g	300.00		91.9	75-125				
LCS Dup (F609582-BSD1)	Prepared: 27-Sep-16 Analyzed: 29-Sep-16											
Mercury	286.7	-	75.0	ng/g	300.00		95.6	75-125	3.87	24		

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
 1816 South Oak Street, MC 652
 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 snails
 Project Manager: Jeff Levensgood PhD, CWB

Reported:
 30-Sep-16 15:27


Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch F609582 - EFGS-058 Teflon Conc. Nitric Tissue Digestion

Matrix Spike (F609582-MS1)		Source: 1608278-01		Prepared: 27-Sep-16 Analyzed: 29-Sep-16							
Mercury	40.5	-	2.7	ng/g	36.383	7.6	90.3	71-125			
Matrix Spike (F609582-MS2)		Source: 1608278-02		Prepared: 27-Sep-16 Analyzed: 29-Sep-16							
Mercury	47.8	-	2.9	ng/g	39.248	10.1	96.0	71-125			
Matrix Spike Dup (F609582-MSD1)		Source: 1608278-01		Prepared: 27-Sep-16 Analyzed: 29-Sep-16							
Mercury	41.9	-	2.7	ng/g	36.383	7.6	94.3	71-125	4.25	24	
Matrix Spike Dup (F609582-MSD2)		Source: 1608278-02		Prepared: 27-Sep-16 Analyzed: 29-Sep-16							
Mercury	47.7	-	2.9	ng/g	39.248	10.1	95.8	71-125	0.199	24	

Eurofins Frontier Global Sciences, Inc.



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Patrick Garcia-Strickland, Laboratory Director

University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 snails
Project Manager: Jeff Levengood PhD, CWB

Reported:
30-Sep-16 15:27

Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QM-13 The analytical spike recovery was outside control limits for the AS and/or ASD. The batch was accepted based on MS/MSD and LCS/LCSD recoveries within control limits.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- AS This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

23 July 2016

Jeffery Levensgood
University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign, ILLINOIS 61820

RE: Trace Metals In Snails, Fish Liver And Fillet 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall
Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

Reported:
23-Jul-16 10:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1F Pond 6 North LMB 1	1606628-01	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
2F Pond 6 North LMB 2	1606628-02	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
3F Pond 6 North LMB 3	1606628-03	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
4F Pond 6 North LMB 4	1606628-04	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
5F Pond 6 North LMB 5	1606628-05	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
6F Pond 6 North BLG 1	1606628-06	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
7F Pond 6 North BLG 2	1606628-07	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
8F Pond 6 North BLG 3	1606628-08	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
9F Pond 6 North BLG 4	1606628-09	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
10F Pond 6 North BLG 5	1606628-10	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
11F Pond 6 North BEN 1	1606628-11	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
12F Pond 6 North BEN 2	1606628-12	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
13F Pond 6 North BEN 3	1606628-13	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
14F Pond 6 North BEN 4	1606628-14	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
15F Pond 6 North BEN 5	1606628-15	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
16F Pond 6 Middle LMB 1	1606628-16	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
17F Pond 6 Middle LMB 2	1606628-17	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
18F Pond 6 Middle LMB 3	1606628-18	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
19F Pond 6 Middle LMB 4	1606628-19	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
20F Pond 6 Middle LMB 5	1606628-20	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
21F Pond 6 Middle BLG 1	1606628-21	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
22F Pond 6 Middle BLG 2	1606628-22	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
23F Pond 6 Middle BLG 3	1606628-23	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
24F Pond 6 Middle BLG 4	1606628-24	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
25F Pond 6 Middle BLG 5	1606628-25	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
26F Pond 6 Middle BEN 1	1606628-26	Tissue	22-Jun-16 00:00	22-Jun-16 09:25

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

Reported:
23-Jul-16 10:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
27F Pond 6 Middle BEN 2	1606628-27	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
28F Pond 6 Middle BEN 3	1606628-28	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
29F Pond 6 Middle BEN 4	1606628-29	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
30F Pond 6 Middle BEN 5	1606628-30	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
31F Pond 6 South LMB 1	1606628-31	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
32F Pond 6 South LMB 2	1606628-32	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
33F Pond 6 South LMB 3	1606628-33	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
34F Pond 6 South LMB 4	1606628-34	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
35F Pond 6 South LMB 5	1606628-35	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
36F Pond 6 South BLG 1	1606628-36	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
37F Pond 6 South BLG 2	1606628-37	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
38F Pond 6 South BLG 3	1606628-38	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
39F Pond 6 South BLG 4	1606628-39	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
40F Pond 6 South BLG 5	1606628-40	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
41F Pond 6 South BEN 1	1606628-41	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
42F Pond 6 South BEN 2	1606628-42	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
43F Pond 6 South BEN 3	1606628-43	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
44F Pond 6 South BEN 4	1606628-44	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
45F Pond 6 South BEN 5	1606628-45	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
46F Long Pond North LMB 1	1606628-46	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
47F Long Pond North LMB 2	1606628-47	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
48F Long Pond North LMB 3	1606628-48	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
49F Long Pond North LMB 4	1606628-49	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
50F Long Pond North LMB 5	1606628-50	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
51F Long Pond North BLG 1	1606628-51	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
52F Long Pond North BLG 2	1606628-52	Tissue	22-Jun-16 00:00	22-Jun-16 09:25

Eurofins Frontier Global Sciences, Inc.

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

Reported:
23-Jul-16 10:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
53F Long Pond North BLG 3	1606628-53	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
54F Long Pond North BLG 4	1606628-54	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
55F Long Pond North BLG 5	1606628-55	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
61F Long Pond Middle LMB 1	1606628-56	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
62F Long Pond Middle LMB 2	1606628-57	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
63F Long Pond Middle LMB 3	1606628-58	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
64F Long Pond Middle LMB 4	1606628-59	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
65F Long Pond Middle LMB 5	1606628-60	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
66F Long Pond Middle BLG 1	1606628-61	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
67F Long Pond Middle BLG 2	1606628-62	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
68F Long Pond Middle BLG 3	1606628-63	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
69F Long Pond Middle BLG 4	1606628-64	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
70F Long Pond Middle BLG 5	1606628-65	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
71F Long Pond Middle BEN 1	1606628-66	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
76F Long Pond South LMB 1	1606628-67	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
77F Long Pond South LMB 2	1606628-68	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
78F Long Pond South LMB 3	1606628-69	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
79F Long Pond South LMB 4	1606628-70	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
80F Long Pond South LMB 5	1606628-71	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
81F Long Pond South BLG 1	1606628-72	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
82F Long Pond South BLG 2	1606628-73	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
83F Long Pond South BLG 3	1606628-74	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
84F Long Pond South BLG 4	1606628-75	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
85F Long Pond South BLG 5	1606628-76	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
86F Long Pond South BEN 1	1606628-77	Tissue	22-Jun-16 00:00	22-Jun-16 09:25
87F Long Pond South BEN 2	1606628-78	Tissue	22-Jun-16 00:00	22-Jun-16 09:25

Eurofins Frontier Global Sciences, Inc.

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood**Reported:**
23-Jul-16 10:19

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 6/22/2016 9:25:00 AM . The samples were received intact, on-ice within a sealed cooler at 0.0 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager

Sample Receipt Checklist

EFGS Work Order: 1606628

Client: UI

Date & Time Received: 6/22/16 925

Date Labeled: 6/24/16 Labeled By: cm

Project: _____

Received By: CSP

Label Verified By: CWF

of Coolers Received: 1 Samples Arrived By: Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: None/Ambient Loose Ice Gel Ice Dry Ice Coolant Required: Y N Temp Blank Used: Y N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID: <u>5225</u>	CF: <u>+0.1 °C</u>	Date/time: <u>6/22/16 925</u>	By: <u>CSP</u>
Cooler 1: <u>-0.1 °C</u>	w/ CF: <u>0.0 °C</u>	Cooler 4: <u>°C</u>	w/ CF: <u>°C</u>
Cooler 2: <u>°C</u>	w/ CF: <u>°C</u>	Cooler 5: <u>°C</u>	w/ CF: <u>°C</u>
Cooler 3: <u>°C</u>	w/ CF: <u>°C</u>	Cooler 6: <u>°C</u>	w/ CF: <u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>Y</u>	

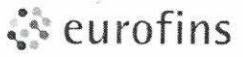
Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Met</u>	

Anomalies/Non-conformances (attach additional pages if needed):

1606628

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
Phone: 425-686-1996
Fax: 425-686-3096
info@FrontierGS.com
http://www.FrontierGS.com



Frontier Global Sciences

Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:	
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:	
Project Name: pond 6 fish (fillet)		E-mail: levensgoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.	
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N	
Phone: 2173336767 Fax:		Phone: Fax:									(If yes, please contact PM)	
E-mail: levensgoo@illinois.edu		E-mail:						EDD <input type="checkbox"/> Y <input type="checkbox"/> N				
										QA <input type="checkbox"/> Standard <input type="checkbox"/> High		
Comments												
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time			Hg				
1	1F	Pond 6 North LMB 1	1	TS		JL. DS		NA	x			
2	2F	Pond 6 North LMB 2	1	x				"	x			
3	3F	Pond 6 North LMB 3	1	x				"	x			
4	4F	Pond 6 North LMB 4	1	x				"	x			
5	5F	Pond 6 North LMB 5	1	x				"	x			
6	6F	Pond 6 North BLG 1	1	x				"	x			
7	7F	Pond 6 North BLG 2	1	x				"	x			
8	8F	Pond 6 North BLG 3	1	x				"	x			
9	9F	Pond 6 North BLG 4	1	x				"	x			
10	10F	Pond 6 North BLG 5	1	x				"	x			
11	11F	Pond 6 North BEN 1	1	x				"	x			
12	12F	Pond 6 North BEN 2	1	x				"	x			
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:		
COC Seal: <i>yes</i>		Comments:	FW: Fresh Water			Name: <i>Jeff Levensgood</i>		Name: <i>Amy Drekonson</i>		Name: <i>Corbin Powell</i>		
Cooler Temp: 0.0°C			WW: Waste Water									
Carrier: <i>UG5</i>			SB: Sea and Brackish Water									
VTSR: <i>925</i>			SS: Soil and Sediment									
# of Coolers:		TS: Plant and Animal Tissue			Organization: <i>INHS</i>		Organization: <i>INHS</i>		Organization: <i>EFGS</i>			
		HC: Hydrocarbons			Date & Time: <i>6/14/16 4:02pm</i>		Date & Time: <i>4:04pm 6/14/16</i>		Date & Time: <i>6/22/16 925</i>			
		TR: Trap			Tracking number: <i>12 619 179 01 5719 2611</i>							
		OT: Other			By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
Sample Disposal:					Customer Approval: _____ Date: _____							
<input type="checkbox"/> Return (shipping fees may apply)												
<input type="checkbox"/> Standard Disposal - 30 Days after report												
<input type="checkbox"/> Retain for _____ weeks after report (storage fees may apply)												

1606628

Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
Phone: 425-686-1996
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info@FrontierGS.com
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Frontier Global Sciences

Page 2 of 16

Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 fish (fillet)		E-mail: levengoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.		
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N		
Phone: 2173336767 Fax:		Phone: Fax:									(If yes, please contact PM)		
E-mail: levengoo@illinois.edu		E-mail:						EDD <input type="checkbox"/> Y <input type="checkbox"/> N					
										QA <input type="checkbox"/> Standard <input type="checkbox"/> High			
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time								Comments
1	13 F	Pond 6 North BEN 3	1	TS		JL DS		NA	x				
2	14 F	Pond 6 North BEN 4	1	x				"	x				
3	15 F	Pond 6 North BEN 5	1	x				"	x				
4	16 F	Pond 6 Middle LMB 1	1	x				"	x				
5	17 F	Pond 6 Middle LMB 2	1	x				"	x				
6	18 F	Pond 6 Middle LMB 3	1	x				"	x				
7	19 F	Pond 6 Middle LMB 4	1	x				"	x				
8	20 F	Pond 6 Middle LMB 5	1	x				"	x				
9	21 F	Pond 6 Middle BLG 1	1	x				"	x				
10	22 F	Pond 6 Middle BLG 2	1	x				"	x				
11	23 F	Pond 6 Middle BLG 3	1	x				"	x				
12	24 F	Pond 6 Middle BLG 4	1	x				"	x				
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:			
COC Seal:	Comments:		FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other			Name:		Name:		Name:			
Cooler Temp:						Organization:		Organization:		Organization:			
Carrier:						Date & Time:		Date & Time:		Date & Time:			
VTSR:						Tracking number:							
Sample Disposal:						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
<input type="checkbox"/> Return (shipping fees may apply)						Customer Approval: _____ Date: _____							
<input type="checkbox"/> Standard Disposal – 30 Days after report													
<input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)													



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Chain of Custody Record & Laboratory Analysis Request:
Air, Water, Sediments, Plant and Animal Tissue,
Hydrocarbon & Other Samples

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Form containing client information, sample details (No., Bag ID, Sample ID, Matrix, Date & Time), analysis requested (Analyses Requested), and laboratory use only (COC Seal, Cooler Temp, Carrier, VTSR, # of Coolers, Matrix Codes, Relinquished By, Received By, Tracking number, Sample Disposal options, and Customer Approval).

1606628

Chain of Custody Record & Laboratory Analysis Request:
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Fax: 425-686-3096
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http://www.FrontierGS.com



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Page 4 of 16

Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61842		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 fish (fillet)		E-mail: levengoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Report To: Jeff Levensgood		Contract/PO:									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)		
Address:		Invoice To: University of Illinois									EDD <input type="checkbox"/> Y <input type="checkbox"/> N		
Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866		Phone: Fax:									QA <input type="checkbox"/> Standard <input type="checkbox"/> High		
Phone: 2173336767 Fax:		E-mail: levengoo@illinois.edu		Date & Time		Hg						Comments	
No.	Bag ID #	Sample ID	# of bags	Matrix									
1	37 F	Pond 6 South BLG 2	1	TS		JL, DS	NA	x					
2	38 F	Pond 6 South BLG 3	1	x			"	x					
3	39 F	Pond 6 South BLG 4	1	x			"	x					
4	40 F	Pond 6 South BLG 5	1	x			"	x					
5	41 F	Pond 6 South BEN 1	1	x			"	x					
6	42 F	Pond 6 South BEN 2	1	x			"	x					
7	43 F	Pond 6 South BEN 3	1	x			"	x					
8	44 F	Pond 6 South BEN 4	1	x			"	x					
9	45 F	Pond 6 South BEN 5	1	x			"	x					
10	46 F	Long Pond North LMB 1	1	x			"	x					
11	47 F	Long Pond North LMB 2	1	x			"	x					
12	48 F	Long Pond North LMB 3	1	x			"	x					
For Laboratory Use Only			Matrix Codes:		Relinquished By:		Received By:		Received By:				
COC Seal:		Comments:		FW: Fresh Water		Name:		Name:		Name:			
Cooler Temp:				WW: Waste Water		Organization:		Organization:		Organization:			
Carrier:				SB: Sea and Brackish Water		Date & Time:		Date & Time:		Date & Time:			
VTSR:				SS: Soil and Sediment		Tracking number:							
# of Coolers:				TS: Plant and Animal Tissue									
		HC: Hydrocarbons											
		TR: Trap											
		OT: Other											
Sample Disposal:						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
<input type="checkbox"/> Return (shipping fees may apply)						Customer Approval: _____ Date: _____							
<input type="checkbox"/> Standard Disposal – 30 Days after report													
<input type="checkbox"/> Retain for _____ weeks after report (storage fees may apply)													

1606628

Chain of Custody Record & Laboratory Analysis Request:
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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:	
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:	
Project Name: pond 6 fish (fillet)		E-mail: levengoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.	
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N	
Phone: 2173336767 Fax:		Phone: Fax:									(If yes, please contact PM)	
E-mail: levengoo@illinois.edu		E-mail:						EDD <input type="checkbox"/> Y <input type="checkbox"/> N				
								QA <input type="checkbox"/> Standard <input type="checkbox"/> High				

No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time	Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Hg					Comments
1	49 F	Long Pond North LMB 4	1	TS		JL. DS		NA	x					
2	50 F	Long Pond North LMB 5	1	x				"	x					
3	51 F	Long Pond North BLG 1	1	x				"	x					
4	52 F	Long Pond North BLG 2	1	x				"	x					
5	53 F	Long Pond North BLG 3	1	x				"	x					
6	54 F	Long Pond North BLG 4	1	x				"	x					
7	55 F	Long Pond North BLG 5	1	x				"	x					
8	 	Long Pond North BEN 1	1	x	 	 	 	"	x					
9	 	Long Pond North BEN 2	1	x	 	 	 	"	x					
10	 	Long Pond North BEN 3	1	x	 	 	 	"	x					
11	 	Long Pond North BEN 4	1	x	 	 	 	"	x					
12	 	Long Pond North BEN 5	1	x	 	 	 	"	x					

For Laboratory Use Only		Matrix Codes:		Relinquished By:		Received By:		Received By:	
COC Seal:	Comments:	FW: Fresh Water							
Cooler Temp:		WW: Waste Water		Name: Jeff Levensgood		Name: Amy Dickinson		Name:	
Carrier:		SB: Sea and Brackish Water		Organization: INHS		Organization: INHS		Organization:	
VTSR:		SS: Soil and Sediment		Date & Time: 6/14/16 3:59		Date & Time: 6/15/16 4 PM		Date & Time:	
# of Coolers:		TS: Plant and Animal Tissue		Tracking number:					
		HC: Hydrocarbons							
		TR: Trap							
		OT: Other							

Sample Disposal:				By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.			
<input type="checkbox"/> Return (shipping fees may apply)				Customer Approval: _____ Date: _____			
<input type="checkbox"/> Standard Disposal - 30 Days after report							
<input type="checkbox"/> Retain for _____ weeks after report (storage fees may apply)							

1606628

Chain of Custody Record & Laboratory Analysis Request:
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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 fish (fillet)		E-mail: levengoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.		
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N		
Phone: 2173336767 Fax:		Phone: Fax:									(If yes, please contact PM)		
E-mail: levengoo@illinois.edu		E-mail:						EDD <input type="checkbox"/> Y <input type="checkbox"/> N					
										QA <input type="checkbox"/> Standard <input type="checkbox"/> High			
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time			Hg					Comments
1	61 F	Long Pond Middle LMB 1	1	TS		JL. DS		NA	x				
2	62 F	Long Pond Middle LMB 2	1	x				"	x				
3	63 F	Long Pond Middle LMB 3	1	x				"	x				
4	64 F	Long Pond Middle LMB 4	1	x				"	x				
5	65 F	Long Pond Middle LMB 5	1	x				"	x				
6	66 F	Long Pond Middle BLG 1	1	x				"	x				
7	67 F	Long Pond Middle BLG 2	1	x				"	x				
8	68 F	Long Pond Middle BLG 3	1	x				"	x				
9	69 F	Long Pond Middle BLG 4	1	x				"	x				
10	70 F	Long Pond Middle BLG 5	1	x				"	x				
11	71 F	Long Pond Middle BEN 1	1	x				"	x				
12		Long Pond Middle BEN 2	1	x				"	x				
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:			
COC Seal:	Comments:		FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other			Name:		Name:		Name:			
Cooler Temp:						Organization:		Organization:		Organization:			
Carrier:						Date & Time:		Date & Time:		Date & Time:			
VTSR:						Tracking number:							
# of Coolers:													
Sample Disposal: <input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal - 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses. Customer Approval: _____ Date: _____							

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Chain of Custody Record & Laboratory Analysis Request:
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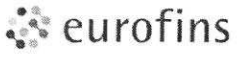
Page 7 of 16

Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:		
Project Name: pond 6 fish (fillet)		E-mail: levensgoo@illinois.edu									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.		
Report To: Jeff Levensgood		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)		
Phone: 2173336767 Fax:		Phone: Fax:									EDD <input type="checkbox"/> Y <input type="checkbox"/> N		
E-mail: levensgoo@illinois.edu		E-mail:						QA <input type="checkbox"/> Standard <input type="checkbox"/> High					
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time			Hg					Comments
1		Long Pond Middle BEN 3	1	TS		JL. DS		NA	X				
2		Long Pond Middle BEN 4	1	X				"	X				
3		Long Pond Middle BEN 5	1	X				"	X				
4	76 F	Long Pond South LMB 1	1	X				"	X				
5	77 F	Long Pond South LMB 2	1	X				"	X				
6	78 F	Long Pond South LMB 3	1	X				"	X				
7	79 F	Long Pond South LMB 4	1	X				"	X				
8	80 F	Long Pond South LMB 5	1	X				"	X				
9	81 F	Long Pond South BLG 1	1	X				"	X				
10	82 F	Long Pond South BLG 2	1	X				"	X				
11	83 F	Long Pond South BLG 3	1	X				"	X				
12	84 F	Long Pond South BLG 4	1	X				"	X				
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:			
COC Seal:		Comments:	FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other			Name:		Name:		Name:			
Cooler Temp:						Organization:		Organization:		Organization:			
Carrier:						Date & Time:		Date & Time:		Date & Time:			
VTSR:						Tracking number:							
# of Coolers:													
Sample Disposal:						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
<input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal - 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)						Customer Approval: _____ Date: _____							

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Client: University of Illinois		Contact: Jeff Levensgood		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO ₃ HCl BrCl Other (%)	Analyses Requested				EFGS PM:	
Address: INHS Forbes Bldg. 1816 S Oak St, Champaign IL 61820		Phone: 2173336767 Fax:									Date:	
Project Name: pond 6 fish (fillet)		E-mail: levengoo@illinois.edu					TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.					
Report To: Jeff Levensgood		Contract/PO:					(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)					
Address:		Address: Invoice Processing Center, PO Box 820, Rantoul IL 61866					Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N					
Phone: 2173336767 Fax:		Phone: Fax:					(If yes, please contact PM)					
E-mail: levengoo@illinois.edu		E-mail:		EDD <input type="checkbox"/> Y <input type="checkbox"/> N								
				QA <input type="checkbox"/> Standard <input type="checkbox"/> High								
No.	Bag ID #	Sample ID	# of bags	Matrix	Date & Time	Hg					Comments	
1	85F	Long Pond South BLG 5	1	TS								
2	86F	Long Pond South BEN 1	1	x								
3	87F	Long Pond South BEN 2	1	x								
4		Long Pond South BEN 3	1	x								
5		Long Pond South BEN 4	1	x								
6		Long Pond South BEN 5	1	x								
7												
8												
9												
10												
11												
12												
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:		
COC Seal:	Comments:		FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other			Name:		Name:		Name:		
Cooler Temp:						Organization:		Organization:		Organization:		
Carrier:						Date & Time:		Date & Time:		Date & Time:		
VTSR:						Tracking number:						
# of Coolers:	Sample Disposal:					By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.						
	<input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal – 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)					Customer Approval: _____ Date: _____						



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

1F Pond 6 North LMB 1
1606628-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	181	-	3.66	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	
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Amy Goodall, Project Manager



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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

2F Pond 6 North LMB 2
1606628-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	232	-	3.64	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

3F Pond 6 North LMB 3
1606628-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	182	-	3.89	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

4F Pond 6 North LMB 4
1606628-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	210	-	3.83	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

5F Pond 6 North LMB 5
1606628-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	125	-	3.85	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

6F Pond 6 North BLG 1
1606628-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	32.2	-	3.70	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

7F Pond 6 North BLG 2
1606628-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	62.0	-	3.64	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**8F Pond 6 North BLG 3
1606628-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	65.9	-	3.86	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

9F Pond 6 North BLG 4
1606628-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	40.9	-	4.00	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

10F Pond 6 North BLG 5
1606628-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	52.7	-	3.58	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

11F Pond 6 North BEN 1
1606628-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	36.5	-	3.85	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

12F Pond 6 North BEN 2
1606628-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	65.4	-	3.61	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

13F Pond 6 North BEN 3
1606628-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	38.7	-	3.70	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

14F Pond 6 North BEN 4
1606628-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	27.3	-	3.70	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

15F Pond 6 North BEN 5
1606628-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	242	-	3.91	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

16F Pond 6 Middle LMB 1
1606628-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	252	-	4.03	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

17F Pond 6 Middle LMB 2
1606628-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	220	-	17.4	ng/g	500	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**18F Pond 6 Middle LMB 3
1606628-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	411	-	18.2	ng/g	500	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

19F Pond 6 Middle LMB 4
1606628-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	289	-	3.79	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**20F Pond 6 Middle LMB 5
1606628-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	304	-	3.82	ng/g	100	F606327	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**21F Pond 6 Middle BLG 1
1606628-21**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	126	-	3.58	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

22F Pond 6 Middle BLG 2
1606628-22

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	68.6	-	3.52	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

23F Pond 6 Middle BLG 3
1606628-23

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	88.8	-	3.39	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

24F Pond 6 Middle BLG 4
1606628-24

Analyte	Detection Result	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion										
Mercury	100	-	3.66 ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

25F Pond 6 Middle BLG 5
1606628-25

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	112	-	3.79	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



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1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

26F Pond 6 Middle BEN 1
1606628-26

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	49.6	-	3.46	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

27F Pond 6 Middle BEN 2
1606628-27

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	115	-	3.72	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**28F Pond 6 Middle BEN 3
1606628-28**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	128	-	3.37	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**29F Pond 6 Middle BEN 4
1606628-29**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	77.3	-	3.48	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**30F Pond 6 Middle BEN 5
1606628-30**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	32.4	-	3.48	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**31F Pond 6 South LMB 1
1606628-31**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	424	-	18.1	ng/g	500	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

32F Pond 6 South LMB 2
1606628-32

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	370	-	19.3	ng/g	500	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**33F Pond 6 South LMB 3
1606628-33**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	320	-	17.4	ng/g	500	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

34F Pond 6 South LMB 4
1606628-34

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	154	-	3.41	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

35F Pond 6 South LMB 5
1606628-35

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	353	-	18.8	ng/g	500	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

36F Pond 6 South BLG 1
1606628-36

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	166	-	3.53	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

37F Pond 6 South BLG 2
1606628-37

Analyte	Detection Result	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion										
Mercury	101	-	3.77	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

38F Pond 6 South BLG 3
1606628-38

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	138	-	3.92	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

39F Pond 6 South BLG 4
1606628-39

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	106	-	3.75	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: pond 6 fish (fillet) Project Manager: Jeffery Levengood	Reported: 23-Jul-16 10:19
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40F Pond 6 South BLG 5
1606628-40

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	117	-	3.53	ng/g	100	F606329	28-Jun-16	6F30016	30-Jun-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

41F Pond 6 South BEN 1
1606628-41

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	77.6	-	18.8	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

42F Pond 6 South BEN 2
1606628-42

Analyte	Detection Result	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion										
Mercury	134	-	19.3 ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

43F Pond 6 South BEN 3
1606628-43

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	81.5	-	17.7	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

44F Pond 6 South BEN 4
1606628-44

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	58.5	-	17.7	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

45F Pond 6 South BEN 5
1606628-45

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	46.9	-	19.2	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

46F Long Pond North LMB 1
1606628-46

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	243	-	18.1	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

47F Long Pond North LMB 2
1606628-47

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	248	-	18.0	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

48F Long Pond North LMB 3
1606628-48

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	255	-	17.2	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

49F Long Pond North LMB 4
1606628-49

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	200	-	19.0	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**50F Long Pond North LMB 5
1606628-50**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	155	-	19.5	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**51F Long Pond North BLG 1
1606628-51**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	113	-	17.2	ng/g	500	F606342	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

52F Long Pond North BLG 2
1606628-52

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	83.6	-	17.5	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**53F Long Pond North BLG 3
1606628-53**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	57.4	-	17.6	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**54F Long Pond North BLG 4
1606628-54**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	38.8	-	18.1	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

55F Long Pond North BLG 5
1606628-55

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	51.7	-	19.2	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**61F Long Pond Middle LMB 1
1606628-56**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	299	-	18.6	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

62F Long Pond Middle LMB 2
1606628-57

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	257	-	18.2	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

63F Long Pond Middle LMB 3
1606628-58

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	320	-	18.5	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

64F Long Pond Middle LMB 4
1606628-59

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	292	-	18.7	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

65F Long Pond Middle LMB 5
1606628-60

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	223	-	18.5	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**66F Long Pond Middle BLG 1
1606628-61**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	74.6	-	17.1	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

67F Long Pond Middle BLG 2
1606628-62

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	70.3	-	18.6	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

68F Long Pond Middle BLG 3
1606628-63

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	318	-	18.3	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**69F Long Pond Middle BLG 4
1606628-64**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	93.3	-	17.1	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**70F Long Pond Middle BLG 5
1606628-65**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	55.9	-	18.2	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

71F Long Pond Middle BEN 1
1606628-66

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	40.9	-	19.8	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

76F Long Pond South LMB 1
1606628-67

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	301	-	17.9	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**77F Long Pond South LMB 2
1606628-68**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	301	-	16.9	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

78F Long Pond South LMB 3
1606628-69

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	384	-	17.5	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

79F Long Pond South LMB 4
1606628-70

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	314	-	18.1	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

80F Long Pond South LMB 5
1606628-71

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	442	-	18.5	ng/g	500	F606345	29-Jun-16	6G05005	05-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**81F Long Pond South BLG 1
1606628-72**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	169	-	17.9	ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**82F Long Pond South BLG 2
1606628-73**

Analyte	Detection Result	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion										
Mercury	133	-	17.9 ng/g	500	F606357	30-Jun-16	6G01007	01-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey 1816 South Oak Street, MC 652 Champaign ILLINOIS, 61820	Project: Trace Metals In Snails, Fish Liver And Fillet 2016 Project Number: pond 6 fish (fillet) Project Manager: Jeffery Levengood	Reported: 23-Jul-16 10:19
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**83F Long Pond South BLG 3
1606628-74**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	93.8	-	18.0	ng/g	500	F607334	20-Jul-16	6G21010	21-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



University Of Illinois - Natural History Survey
1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

**84F Long Pond South BLG 4
1606628-75**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	128	-	20.2	ng/g	500	F607334	20-Jul-16	6G21010	21-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



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1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

85F Long Pond South BLG 5
1606628-76

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	118	-	18.4	ng/g	500	F607334	20-Jul-16	6G21010	21-Jul-16	EPA 1631B	

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Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

86F Long Pond South BEN 1
1606628-77

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	88.9	-	18.3	ng/g	500	F607334	20-Jul-16	6G21010	21-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager



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Champaign ILLINOIS, 61820

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Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levengood

Reported:
23-Jul-16 10:19

87F Long Pond South BEN 2
1606628-78

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion											
Mercury	24.4	-	16.9	ng/g	500	F607334	20-Jul-16	6G21010	21-Jul-16	EPA 1631B	

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Amy Goodall, Project Manager

University Of Illinois - Natural History Survey
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 Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
 Project Number: pond 6 fish (fillet)
 Project Manager: Jeffery Levensgood

Reported:
 23-Jul-16 10:19

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F606327 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F606327-BLK1) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.800	ng/g							U
Blank (F606327-BLK2) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.800	ng/g							U
Blank (F606327-BLK3) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.800	ng/g							U
Blank (F606327-BLK4) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.727	ng/g							U
Blank (F606327-BLK5) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.787	ng/g							U
Blank (F606327-BLK6) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.752	ng/g							U
Blank (F606327-BLK7) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.746	ng/g							U
LCS (F606327-BS1) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	8.290	-	0.800	ng/g	8.0160		103	75-125			
LCS (F606327-BS2) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	339.7	-	40.3	ng/g	382.50		88.8	75-125			
LCS Dup (F606327-BSD1) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	8.085	-	0.800	ng/g	8.0160		101	75-125	2.50	24	

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

Reported:
23-Jul-16 10:19

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F606327 - EFGS-011 Nitric/Sulfuric Hg Digestion

Duplicate (F606327-DUP1)		Source: 1606628-01		Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	172.2	-	4.00	ng/g		181.4			5.18	24	
Matrix Spike (F606327-MS1)		Source: 1606628-01		Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	565.7	-	19.8	ng/g	396.05	181.4	97.0	71-125			
Matrix Spike (F606327-MS2)		Source: 1606628-16		Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	669.1	-	19.2	ng/g	383.91	252.3	109	71-125			
Matrix Spike Dup (F606327-MSD1)		Source: 1606628-01		Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	554.2	-	17.6	ng/g	352.82	181.4	106	71-125	8.51	24	
Matrix Spike Dup (F606327-MSD2)		Source: 1606628-16		Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	668.7	-	19.3	ng/g	386.87	252.3	108	71-125	0.873	24	

Batch F606329 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F606329-BLK2)				Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	ND	-	0.800	ng/g							U
Blank (F606329-BLK3)				Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	ND	-	0.800	ng/g							U
Blank (F606329-BLK4)				Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	ND	-	0.629	ng/g							U
Blank (F606329-BLK5)				Prepared: 28-Jun-16 Analyzed: 30-Jun-16							
Mercury	ND	-	0.643	ng/g							U

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

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23-Jul-16 10:19

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F606329 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F606329-BLK6) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.602	ng/g							U
Blank (F606329-BLK7) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.633	ng/g							U
Blank (F606329-BLK8) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	ND	-	0.800	ng/g							U
LCS (F606329-BS1) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	8.469	-	0.800	ng/g	8.0160		106	75-125			
LCS (F606329-BS2) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	315.1	-	39.7	ng/g	382.50		82.4	75-125			
LCS (F606329-BS3) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	349.0	-	39.7	ng/g	382.50		91.2	75-125			
LCS Dup (F606329-BSD1) Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	8.546	-	0.800	ng/g	8.0160		107	75-125	0.903	24	
Duplicate (F606329-DUP1) Source: 1606628-26 Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	51.67	-	3.57	ng/g		49.55			4.18	24	
Matrix Spike (F606329-MS1) Source: 1606628-26 Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	404.2	-	17.5	ng/g	350.88	49.55	101	71-125			
Matrix Spike (F606329-MS2) Source: 1606628-35RE1 Prepared: 28-Jun-16 Analyzed: 30-Jun-16											
Mercury	665.1	-	16.8	ng/g	336.70	352.9	92.7	71-125			

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Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

Reported:
23-Jul-16 10:19

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F606329 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F606329-MSD1)		Source: 1606628-26			Prepared: 28-Jun-16 Analyzed: 30-Jun-16						
Mercury	405.9	-	17.7	ng/g	353.36	49.55	101	71-125	0.240	24	
Matrix Spike Dup (F606329-MSD2)		Source: 1606628-35RE1			Prepared: 28-Jun-16 Analyzed: 30-Jun-16						
Mercury	688.0	-	17.5	ng/g	349.65	352.9	95.8	71-125	3.30	24	

Batch F606342 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F606342-BLK1)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	ND	-	0.800	ng/g							U
Blank (F606342-BLK2)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	ND	-	0.800	ng/g							U
Blank (F606342-BLK3)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	ND	-	0.800	ng/g							U
Blank (F606342-BLK4)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	ND	-	0.645	ng/g							F-03, U
Blank (F606342-BLK5)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	ND	-	0.766	ng/g							F-03, U
LCS (F606342-BS1)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	8.482	-	0.800	ng/g	8.0160		106	75-125			
LCS (F606342-BS2)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	331.1	-	39.7	ng/g	382.50		86.6	75-125			

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Amy Goodall, Project Manager

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
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Project Manager: Jeffery Levensgood

Reported:
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F606342 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS Dup (F606342-BSD1)											
					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	8.333	-	0.800	ng/g	8.0160		104	75-125	1.77	24	
Duplicate (F606342-DUP1)											
					Source: 1606543-04RE1 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	3.687	-	0.735	ng/g		3.698			0.306	24	
Matrix Spike (F606342-MS1)											
					Source: 1606543-04RE1 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	367.9	-	19.0	ng/g	380.95	3.698	95.6	71-125			
Matrix Spike (F606342-MS2)											
					Source: 1606628-42 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	526.7	-	18.9	ng/g	378.79	134.5	104	71-125			
Matrix Spike Dup (F606342-MSD1)											
					Source: 1606543-04RE1 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	352.7	-	17.9	ng/g	357.78	3.698	97.5	71-125	1.99	24	
Matrix Spike Dup (F606342-MSD2)											
					Source: 1606628-42 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	490.4	-	17.6	ng/g	351.49	134.5	101	71-125	2.23	24	

Batch F606345 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F606345-BLK1)											
					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	ND	-	0.800	ng/g							U
Blank (F606345-BLK2)											
					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	ND	-	0.800	ng/g							U
Blank (F606345-BLK3)											
					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	ND	-	0.800	ng/g							U

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Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

Reported:
23-Jul-16 10:19

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F606345 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F606345-BS1)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	8.268	-	0.800	ng/g	8.0160		103	75-125			
LCS (F606345-BS2)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	339.4	-	39.4	ng/g	382.50		88.7	75-125			
LCS Dup (F606345-BSD1)					Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	8.766	-	0.800	ng/g	8.0160		109	75-125	5.85	24	
Duplicate (F606345-DUP1)					Source: 1606628-58 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	341.1	-	18.2	ng/g		320.4			6.26	24	
Matrix Spike (F606345-MS1)					Source: 1606628-58 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	635.5	-	17.8	ng/g	356.58	320.4	88.4	71-125			
Matrix Spike (F606345-MS2)					Source: 1606628-69 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	799.9	-	18.7	ng/g	373.88	384.3	111	71-125			
Matrix Spike Dup (F606345-MSD1)					Source: 1606628-58 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	732.3	-	18.8	ng/g	376.69	320.4	109	71-125	21.2	24	
Matrix Spike Dup (F606345-MSD2)					Source: 1606628-69 Prepared: 29-Jun-16 Analyzed: 05-Jul-16						
Mercury	774.4	-	17.2	ng/g	344.33	384.3	113	71-125	1.91	24	

Batch F606357 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F606357-BLK2)					Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	ND	-	0.800	ng/g							U

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Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

Reported:
23-Jul-16 10:19

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F606357 - EFGS-011 Nitric/Sulfuric Hg Digestion											
Blank (F606357-BLK3)					Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	ND	-	0.800	ng/g							U
Blank (F606357-BLK4)					Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	ND	-	0.733	ng/g							FB, U
Blank (F606357-BLK5)					Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	ND	-	0.656	ng/g							FB, U
Blank (F606357-BLK6)					Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	ND	-	0.800	ng/g							U
LCS (F606357-BS1)					Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	8.190	-	0.800	ng/g	8.0160		102	75-125			
LCS (F606357-BS2)					Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	375.2	-	40.0	ng/g	382.50		98.1	75-125			
LCS Dup (F606357-BSD1)					Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	8.346	-	0.800	ng/g	8.0160		104	75-125	1.89	24	
Duplicate (F606357-DUP1)					Source: 1606628-72 Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	134.4	-	19.6	ng/g		169.4			23.0	24	
Duplicate (F606357-DUP2)					Source: 1606628-72 Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	161.1	-	17.9	ng/g		169.4			5.02	24	AD
Matrix Spike (F606357-MS1)					Source: 1606628-72 Prepared: 30-Jun-16 Analyzed: 01-Jul-16						
Mercury	484.2	-	18.1	ng/g	361.73	169.4	87.0	71-125			

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F606357 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike (F606357-MS2)		Source: 1606628-73		Prepared: 30-Jun-16 Analyzed: 01-Jul-16							
Mercury	527.3	-	19.3	ng/g	386.87	133.2	102	71-125			
Matrix Spike Dup (F606357-MSD1)		Source: 1606628-72		Prepared: 30-Jun-16 Analyzed: 01-Jul-16							
Mercury	489.7	-	17.1	ng/g	341.98	169.4	93.7	71-125	7.32	24	
Matrix Spike Dup (F606357-MSD2)		Source: 1606628-73		Prepared: 30-Jun-16 Analyzed: 01-Jul-16							
Mercury	539.7	-	19.4	ng/g	388.37	133.2	105	71-125	2.72	24	

Batch F607334 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F607334-BLK1)		Prepared: 20-Jul-16 Analyzed: 21-Jul-16									
Mercury	ND	-	0.400	ng/g							U
Blank (F607334-BLK2)		Prepared: 20-Jul-16 Analyzed: 21-Jul-16									
Mercury	ND	-	0.400	ng/g							U
Blank (F607334-BLK3)		Prepared: 20-Jul-16 Analyzed: 21-Jul-16									
Mercury	ND	-	0.400	ng/g							U
Blank (F607334-BLK4)		Prepared: 20-Jul-16 Analyzed: 21-Jul-16									
Mercury	ND	-	0.794	ng/g							FB, U
Blank (F607334-BLK5)		Prepared: 20-Jul-16 Analyzed: 21-Jul-16									
Mercury	ND	-	0.797	ng/g							FB, U
LCS (F607334-BS1)		Prepared: 20-Jul-16 Analyzed: 21-Jul-16									
Mercury	3.884	-	0.400	ng/g	4.0080		96.9	75-125			

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1816 South Oak Street, MC 652
Champaign ILLINOIS, 61820

Project: Trace Metals In Snails, Fish Liver And Fillet 2016
Project Number: pond 6 fish (fillet)
Project Manager: Jeffery Levensgood

Reported:
23-Jul-16 10:19

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F607334 - EFGS-011 Nitric/Sulfuric Hg Digestion

LCS (F607334-BS2)					Prepared: 20-Jul-16 Analyzed: 21-Jul-16						
Mercury	359.3	-	19.6	ng/g	382.50		93.9	75-125			
LCS Dup (F607334-BSD1)					Prepared: 20-Jul-16 Analyzed: 21-Jul-16						
Mercury	4.033	-	0.400	ng/g	4.0080		101	75-125	3.79	24	
Duplicate (F607334-DUP1)					Source: 1606628-77 Prepared: 20-Jul-16 Analyzed: 21-Jul-16						
Mercury	89.24	-	17.2	ng/g		88.94			0.337	24	
Matrix Spike (F607334-MS1)					Source: 1606628-77 Prepared: 20-Jul-16 Analyzed: 21-Jul-16						
Mercury	437.2	-	18.7	ng/g	375.28	88.94	92.8	71-125			
Matrix Spike Dup (F607334-MSD1)					Source: 1606628-77 Prepared: 20-Jul-16 Analyzed: 21-Jul-16						
Mercury	412.5	-	18.7	ng/g	375.28	88.94	86.2	71-125	7.38	24	

Eurofins Frontier Global Sciences, Inc.



The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

University Of Illinois - Natural History Survey
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23-Jul-16 10:19**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- FB This blank is a filtration blank. Data is reported for informational purposes only.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- AD This matrix duplicate is an analytical duplicate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference