

AMP 2013 DATA QUALITY REVIEW SUMMARY

ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION

Dated: May 21, 2014

Revised: January 14, 2015

Prepared by: Janaki Suryadevara, Sanitary Engineer 2

This 2013 AMP data quality review summary outlines the following:

- I. Data Qualifier Flags
- II. Charge Balance Summary
- III. Review for Outliers
- IV. Ultra Low-Level Mercury results
- V. Data Action (for inclusion or rejection of the associated data for the 2013 AMP Annual AMP Report related calculations)

I. Data Qualifier Flags:

During 2013, the OCDWEP Environmental laboratory annotated AMP analytical results with standard data flags. The laboratory provides comments in the database to clarify the rationale for the data flags assigned to the sample results.

Data flags used from January 1, 2013, to July 31, 2013:

The criteria used by the OCDWEP Environmental Laboratory for assigning the following five (5) data qualifier flags during this period are as follows:

1. ***P - Unacceptable for field quality assurance criteria.***
Data Action: All reported values flagged with the “P” flag were included in the AMP water quality database and qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).
2. ***V - Reported value is considered estimated due to variance from quality control or assurance criteria.***
Data Action: All reported values flagged with the “V” flag were included in the AMP water quality database and qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).
3. ***N - Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates.***
Data Action: All reported values flagged with the “N” flag were included in the AMP water quality database and qualified as “1” in the AMP water quality database (included in the AMP annual report related calculations).
4. ***U - Indicates that the measured value is below the MRL. Note that possible MRL elevation is dependent upon analyzed mass, volumes, and/or dilution volumes.***
Data Action: All reported values flagged with the “U” flag were included in the AMP water quality database and qualified as “1” in the AMP water quality database (included in the AMP annual report related calculations).
5. ***X - Reported value fails limnological or analytical reasonableness.***
Data Action:
 - a. Reported values flagged with the “X” flag, within the range of uncertainty as determined by the Lab, were included in the AMP water quality database and qualified as “1” for use in the AMP Annual Report related calculations.

- b. Reported values flagged with the “X” flag, and not within the range of uncertainty as determined by the Lab, were included in the AMP water quality database and qualified as “2” (rejected in the AMP annual report related calculations).

Data flags used from August 1, 2013, to December 31, 2013:

The criteria for the additional data qualifier flags as assigned by OCDWEP Environmental Laboratory effective August 1, 2013, when the laboratory expanded the number of data qualifying flags from five (5) to eleven (11) as described below to provide new flags that were previously covered under the "V" flag are as follows (note of the 11 new flags, only 8 flags were used for the AMP data – B2, H and K were not used for any of the sample results):

1. ***B1: The associated method blank failed due to method specific requirements or the analyte was found in the associated method, field, or equipment blank, as well as in the sample. It indicates possible/probable contamination and it may have contributed to the sample result.***

The AMP calls for preparing blanks of the cleaned sampling equipment prior to its use. Results of these samples are used to infer whether samples collected in the field are potentially compromised by the presence of contaminants in the sampling equipment and includes:

- Screening the blanks in the database for detectable concentrations
- Comparing results of the rinsate blanks to MRL by parameter
- Comparing results of the rinsate blanks to field sample results

Equipment rinsate blank data are either qualified (in the sample remark field) or flagged by the Lab, using a “B1” flag added for reported values which exceed the acceptable limits for the blank concentrations based on the following criteria:

First criteria (If Blank Conc. > MRL and $\leq 2 \times$ MRL)

- (i) The OCDWEP Environmental Laboratory (Lab) verifies the analytical result by repeating the analysis, if possible (i.e., sample was within “hold time” and sufficient volume was available to repeat analysis).
- (ii) If analysis was repeated and the blank concentration result was again > MRL and $\leq 2 \times$ MRL, the Lab adds the following in the sample remark field - “{parameter} result verified.”
- (iii) The parameter was considered to be present at trace concentration - No “B1” flag added or action needed.

Second Criteria (If Blank Conc. > 2 x MRL)

- (i) The Lab flagged the Blank Conc. result as “B1” and added the following in the sample remark field of the blank concentration - “Blank concentration of {parameter} exceeds acceptable limits” and issued an “Audit Notification Form” to the AMP Sanitary Engineer.
- (ii) If Sample Concentration < 5 x Blank Concentration, the sample result/s was qualified. The Lab added the following sample remark to result/s to indicate possible blank contamination:
 - a. “Blank Concentration of (parameter) exceeds acceptable limits. Associated sample result is < 5 x Blank Concentration” and adds the “B1” flag to sample/s with results < 5 x Blank Concentration.

Data Action:

All reported values flagged with the “B1” flag were included in the AMP water quality database and qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).

2. ***B2: The calibration blank for the metal's ICP analyte was outside of established limits but below the (MRL) Method Reporting Limit.***

Data Action:

No reported values were flagged with the "B2" flag which would be qualified as "1" in the AMP water quality database (for rejection in the AMP annual report related calculations).

3. ***H: Sample received or held beyond the accepted holding time and the reported result cannot be used for compliance purposes. This code is used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparations or analysis.***

Data Action:

No reported values were flagged with the "H" flag which would be qualified as "2" in the AMP water quality database (for rejection in the AMP annual report related calculations).

4. ***K: BOD/CBOD: Glucose/Glutamic acid BOD/CBOD standard was outside of acceptable limits.***

Data Action:

No reported values were flagged with the "K" flag which would be qualified as "2" in the AMP water quality database (for rejection in the AMP annual report related calculations).

5. ***M: Laboratory matrix spike recovery was outside of acceptable limits for the associated method.***

Data Action:

All reported values flagged with the "M" flag were qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).

6. ***N: Duplicates: (RPD) Relative Percent Difference exceeds the laboratory control limit for laboratory matrix duplicates or matrix spike duplicates.***

Data Action:

Reported value flagged with the "N" flag was included in the AMP water quality database and qualified as "1" for use in the AMP Annual Report related calculations.

7. ***P: Result is unacceptable for field quality assurance criteria. The field duplicate exceeds the project's established QAPP acceptance limits.***

Field duplicates were evaluated using RPD (Relative Percent Difference) of the results and the absolute difference of the sample and duplicate result. RPD greater than 20% were considered outside of quality control limits. In some cases, the RPD's are greater than 20% because concentrations are at or near the detection level for some parameters; therefore, field duplicates with RPD greater than 20% were also evaluated for absolute difference greater than 2 x the MRL. Where the absolute difference was less than 2 x the MRL, no further action was required; where the absolute difference was greater than 2 x the MRL, additional investigation was warranted.

Field duplicates were flagged based on the following criteria:

- (i) *From August 1, 2013, the criteria limit for flagging the field duplicates was based on 20% RPD only.*

- (ii) Lab verified the analytical results of the original and duplicate sample by repeating analysis, if possible (i.e., sample was within “hold time” and sufficient volume was available to repeat analysis).
- (iii) If the analysis was repeated and the %RPD failed, the absolute duplicate difference was evaluated. When the absolute duplicate difference > 2 x MRL, then the results failed the acceptance criterion.
- (iv) Lab issued an Audit Notification Form to the AMP Sanitary Engineer and adds a “P” flag to both the original and duplicate reported sample results that exceed the acceptable criterion for the duplicate differences (field duplicates). The following sample remark was added to both the original and duplicate sample as follows: “Field duplicate exceeded acceptance criteria”.

Data Action:

All reported values flagged with the “P” flag were included in the AMP water quality database and qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).

8. ***Q: The laboratory analysis was from an improperly preserved sample. The reported value is considered an estimate and cannot be used for compliance purposes. Flag is used when one of the following conditions apply; sample integrity was not maintained, received in inappropriate sample container, improper chemical preservation, without chemical preservation, inadequate dechlorination, insufficient sample volume to meet method requirements, or above recommended temperature.***

Data Action:

All reported values flagged with the “Q” flag were included in the AMP water quality database and qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).

9. ***U: Indicates that the reported value is below the (MRL) Method Report Limit. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and / or dilution volumes)***

Data Action:

Reported values flagged with the “U” flag were included in the AMP water quality database and qualified as “1” for use in the AMP Annual Report related calculations.

10. ***V: Reported value is considered estimated due to variance from quality control or assurance criteria. The LFB, ICV, CCV or LCS solution(s) was outside acceptable limits and cannot be repeated. Refer to sample remarks for case narrative.***

The reported value for sample result was considered estimated due to variance from quality control or assurance criteria. Note: Whenever a 'V' flag is entered for a parameter, the sample remark must indicate the reason for the flag.

Additional reasons or situations when a "V" flag should be entered include:

Toxic Tendencies for BOD, CBOD

Data Action:

Reported value flagged with the “V” flag was included in the AMP water quality database and qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).

11. **X: Reported value fails limnological or analytical reasonableness. This code is used when a set of analysis, such as TDS less than TS or TKN less than NH3, do not agree. Refer to sample remarks for case narrative.**

Several parameters were evaluated for limnological reasonableness for each sample, using the data from the tributaries and the lake. The “X” flag for a sample result indicates that the reported result does not meet the evaluation for limnological reasonableness.

These evaluations include (but are not limited to):

- Phosphorus: $SRP \leq TDP \leq TP$
- Nitrogen: $NH_3-N \leq TKN$
 $NH_3-N \leq TKN-F$
- $BOD_5 \geq CBOD_5$

Data Action:

- (i) Reported values flagged with the “X” flag, within the range of uncertainty as determined by the Lab, were included in the AMP water quality database and qualified as “1” for use in the AMP Annual Report related calculations.
- (ii) Reported values flagged with the “X” flag, and not within the range of uncertainty as determined by the Lab, were included in the AMP water quality database and qualified as “2” (rejected in the AMP annual report related calculations).

II. Charge Balance Summary:

The charge balance results were evaluated against an upper limit of 20% for field samples and duplicates from the lake and the tributaries.

	<u>Tributaries</u>	<u>Lake</u>
Average	30.24 %	4.75%
Median	28.75 %	3.32%
N exceeds 20%	14	0

2013 Tributary samples where charge balance exceeded 20%

Sample No.	Source	Date	Charge Balance %	TSS (mg/L)
2013001263	Crk-Onondaga Creek @ Kirkpatrick - Duplicate	31-Jan-13	32.5	457
2013001257	Crk-Onondaga Creek @ Dorwin Ave.	31-Jan-13	34.2	536
2013003520	Crk-Onondaga Creek @ Kirkpatrick	12-Mar-13	30.9	298
2013003537	Crk-Tributary 5a @ State Fair Blvd – Duplicate	12-Mar-13	21.9	58
2013003524	Crk-Nine Mile Creek @ Lakeland Rt 48	12-Mar-13	22.5	25
2013003528	Crk-Onondaga Creek @ Dorwin Ave.	12-Mar-13	42.0	282
2013003531	Crk-Harbor Brook @ Bellevue Avenue	12-Mar-13	22.1	14
2013007927	Crk-Onondaga Creek @ Dorwin Ave.	30-May-13	27.7	190
2013008707	Crk-Harbor Brook @ Hiawatha	13-Jun-13	29.8	219
2013010572	Crk-Nine Mile Creek @ Lakeland Rt 48	15-Jul-13	39.9	440
2013011475	Crk-Nine Mile Creek @ Lakeland Rt 48	30-Jul-13	24.3	744
2013011488	Crk-Nine Mile Creek @ Lakeland Rt 48 – Duplicate	30-Jul-13	27.4	741
2013011478	Crk-Onondaga Creek @ Dorwin Ave.	30-Jul-13	23.3	<5
2013014140*	Crk-Allied East Flume-Manhole 015	25-Sep-13	44.8	<5

The lab verified the major cations and anions results for the fourteen (14) tributary samples where charge balance exceeded 20%. Sample remarks indicate that samples had unusually high solids.

**Sample Number 2013014140: Sample Remark indicates: "Chloride result unusually high as indicated by the charge balance. Chloride dilution factor most likely wrong but cannot be verified."*

Data Action:

One (1) tributary sample of the fourteen (14) listed above (2013014140) was not included in the AMP water quality database for the parameter Chloride only and qualified as "2" for rejection in the AMP Annual Report related calculations.

III. Review for Outliers:

The water quality database was used to identify possible outliers using the tool developed by Dr. William Walker. The primary purpose for the outlier screening is to provide additional quality control for data entry and transfer of the data to the water quality database. For the outlier screening algorithm, the data are fit to a normal or lognormal distribution using a procedure that is robust to outliers. As a result of this analysis, OCDWEP lab verified the 2013 outlier results and no corrections were made.

IV. Ultra low-level Mercury results:

During 2013, the County subcontracted ultra low-level total, dissolved and methyl mercury analysis. Samples collected on three (3) dates April 29, 2013, August 6, 2013, and October 30, 2013, and were analyzed by Test America Laboratories, Inc.

Review of the 2013 ultra low-level mercury analytical data included the following:

- a. Chain of Custody forms
- b. Holding times
- c. Matrix Duplicates and Triplicates
- d. Preparation Blanks
- e. Calibration Blanks
- f. Field/Equipment Blanks

Based on this review, none of these results were flagged by the OCDWEP Lab, as there were no quality control issues.

V. Data Action:

A total of 199 sample results were flagged by OCDWEP Lab in 2013. The following is a listing of the data flags and the data action the OC for inclusion or rejection of the associated data for the 2013 AMP Annual AMP Report related calculations [assigned as "1" – include or "2" – reject].)

NOTE: 1.25% of the 2013 AMP (Tributary, Lake, and River data) and Metro (Tributary, Treatment Plant Effluent and Bypass) data were flagged, and less than 1% (0.97%) of the flagged data were rejected in the AMP Annual Report calculations.

OCDWEP Lab and Contract Lab (Test America) Data Qualifier Flags & Data Action Summary:

OCDWEP Lab Flag	Definition	2013 Occurrence ⁽¹⁾	Data Action
B1	The associated method blank failed due to method specific requirements or the analyte was found in the associated method, field, or equipment blank, as well as in the sample. It indicates possible/probable contamination and it may have contributed to the sample result.	<u>31 records</u> 6 records (Tributary) 16 records (Lake) 9 records (River)	All reported values flagged with the “B1” flag were qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).
M	Laboratory matrix spike recovery was outside of acceptable limits for the associated method.	<u>10 records</u> 5 records (Tributary) 5 records (Lake)	All reported values flagged with the “M” flag were qualified as “1” for use in the AMP Annual Report related calculations.
N	Duplicates: (RPD) Relative Percent Difference exceeds the laboratory control limit for laboratory matrix duplicates or matrix spike duplicates.	<u>17 records</u> 6 records (Tributary) 4 records (Lake) 7 records (River)	All reported values flagged with the “N” flag were qualified as “1” for use in the AMP Annual Report related calculations.
P	Result is unacceptable for field quality assurance criteria. The field duplicate exceeds the project’s established QAPP acceptance limits.	<u>8 records</u> 4 records (Tributary) 4 records (Lake)	All reported values flagged with the “P” flag were qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).
Q	The laboratory analysis was from an improperly preserved sample. The reported value is considered an estimate and cannot be used for compliance purposes. Flag is used when one of the following conditions apply; sample integrity was not maintained, received in inappropriate sample container, improper chemical preservation, without chemical preservation, inadequate dechlorination, insufficient sample volume to meet method requirements, or above recommended temperature.	<u>7 records</u> 7 records (Tributary)	All reported values flagged with the “Q” flag were included in the AMP water quality database and qualified as “2” in the AMP water quality database (rejected in the AMP annual report related calculations).
U	Indicates that the reported value is below the (MRL) Method Report Limit. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and/or dilution volumes)	<u>7 records</u> 7 records (Lake)	All reported values flagged with the “U” flag were qualified as “1” for use in the AMP Annual Report related calculations.

Contract Lab Flag	Definition	<u>2013 Occurrence (1)</u>	Data Action
V	Reported value is considered estimated due to variance from quality control or assurance criteria. The LFB, ICV, CCV or LCS solution(s) was outside acceptable limits and cannot be repeated. Refer to sample remarks for case narrative.	<u>75 records</u> 75 records (Tributary)	All reported values flagged with the "V" flag were qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).
X	Reported value fails limnological or analytical reasonableness. This code is used when a set of analysis, such as TDS less than TS or TKN less than NH3, do not agree. Refer to sample remarks for case narrative.	<u>36 records</u> 30 records (Tributary) 4 records (Lake) 2 records (River)	Reported values flagged with the "X" flag, within the range of uncertainty as determined by the Lab, were included in the AMP water quality database and qualified as "1" for use in the AMP Annual Report related calculations. Reported values flagged with the "X" flag, and not within the range of uncertainty as determined by the Lab, were included in the AMP water quality database and qualified as "2" (rejected in the AMP annual report related calculations).
P, X	Multiple flags used for sample results. SRP: Result verified but exceeded field duplicate limit. High suspended solids present. TP, NO2, NO2/NO3, & Chloride: filtered in the lab. SRP>TDP; fails analytical reasonableness however, the results are within the range of uncertainty of the tests.	<u>2 records</u> 2 records (Tributary)	All reported values flagged with the "P, X" flag were qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).
V, N	Multiple flags used for sample results. TKN: LFB exceeded acceptable limits; lab duplicate: 0.176 mg/L.	<u>2 records</u> 2 records (Tributary)	Reported values flagged with the "V, N" flag were qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).
J	Used by the Contract Lab (Test America) in 2013 for ultra low-level mercury analysis to indicate: J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	<u>2 records</u> <u>2 records (Lake)</u>	Reported values flagged with the "J" flag were qualified as "1" for use in the AMP Annual Report related calculations.
J, B	This is a multiple flag (with both J and B) used by the Contract Lab (Test America) in 2012 for ultra low-level mercury analysis to indicate: J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. B: Compound was found in the blank and sample.	<u>2 records -</u> <u>2 record (Lake)</u>	Reported values flagged with the "J, B" flag were qualified as "1" for use in the AMP Annual Report related calculations.

⁽¹⁾ **NOTE: SEE ATTACHMENT #1 FOR THE LIST OF 2013 AMP FLAGGED DATA.**

ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION
AMBIENT MONITORING PROGRAM
2013 ANNUAL FLAGGED DATA SUMMARY REPORT
ONONDAGA LAKE, TRIBUTARIES, & SENECA RIVER ANALYTICAL FLAGGED DATA SUMMARY
January 1, 2013 - December 31, 2013

Attachment 1

DATE	IC#	SAMPLE#	SOURCE	CATEGORY	PROJECT	PARAMETER	SRESULT	UNITS	REMARKS	FLAG	MRL
01/02/13	911	2013000046	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	Na	124	mg/L		N	3
01/24/13	1960	2013001039	Crk-Harbor Brook @ Bellevue Avenue	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	4	count/100	Coliform sample had ice in it.	V	1
01/24/13	902	2013001028	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	200	count/100	Coliform sample was frozen upon arrival.	V	1
01/24/13	911	2013001036	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	<5	count/100	Coliform sample had ice in it.	V	1
01/24/13	905	2013001033	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	<5	count/100	Coliform sample had ice in it.	V	1
01/24/13	910	2013001037	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	<5	count/100	Coliform sample had ice in it.	V	1
01/24/13	882	2013001029	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	82	count/100	Coliform sample was frozen upon arrival.	V	1
01/24/13	1950	2013001041	Crk-Onondaga Creek @ Plum Street	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	175	count/100	Coliform sample had ice in it.	V	1
01/24/13	1940	2013001040	Crk-Onondaga Creek @ Water Street	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	16	count/100	Coliform sample had ice in it.	V	1
01/24/13	904	2013001034	Crk-Tributary 5a @ State Fair Blvd	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	<10	count/100	Coliform sample had ice in it.	V	1
01/29/13	882	2013001354	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Bacti Only	COND-field	31	umHos/cm	Cond and Salinity: suspected problem with meter.	V	
01/31/13	1091	2013001259	Crk-Bloody Brook @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Biweekly HF	Stage Gauge	na	Ft.	*Bloody Brook staff gage not legible.	*	
02/04/13	1960	2013001555	Crk-Harbor Brook @ Bellevue Avenue	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	82	count/100	Sample had ice in it upon delivery	V	1
02/04/13	902	2013001546	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	240	count/100	Sample had ice in it upon delivery	V	1
02/04/13	911	2013001553	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	27	count/100	Sample had ice in it upon delivery	V	1
02/04/13	905	2013001550	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	118	count/100	Sample had ice in it upon delivery	V	1
02/04/13	910	2013001554	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	127	count/100	Sample had ice in it upon delivery	V	1
02/04/13	882	2013001547	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	210	count/100	Sample had ice in it upon delivery	V	1
02/04/13	1950	2013001558	Crk-Onondaga Creek @ Plum Street	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	200	count/100	Sample had ice in it upon delivery	V	1
02/04/13	1940	2013001557	Crk-Onondaga Creek @ Water Street	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	154	count/100	Sample had ice in it upon delivery	V	1
02/04/13	1906	2013001549	Crk-Onondaga Lake Outlet 2 ft.	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	54	count/100	Sample had ice in it upon delivery	V	1
02/21/13	1960	2013002426	Crk-Harbor Brook @ Bellevue Avenue	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	<5	count/100	Coliform was frozen upon receipt	V	1
02/21/13	911	2013002423	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	8	count/100	Coliform was frozen upon receipt	V	1
02/21/13	908	2013002418	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Bacti Only	COND-field	2943	umHos/cm	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
02/21/13	908	2013002418	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Bacti Only	DO-field	10.88	mg/L	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
02/21/13	908	2013002418	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Bacti Only	pH-field	7.61	Std Units	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	1
02/21/13	908	2013002418	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Bacti Only	Salinity-field	1.50	ppt	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
02/21/13	908	2013002418	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Bacti Only	Temp-field	-0.07	°C	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
02/21/13	905	2013002420	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	12	count/100	Coliform was frozen upon receipt	V	1
02/21/13	910	2013002424	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	COND-field	4	umHos/cm	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
02/21/13	910	2013002424	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	DO-field	14.61	mg/L	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
02/21/13	910	2013002424	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	<5	count/100	Coliform was frozen upon receipt.	V	1
02/21/13	910	2013002424	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	pH-field	6.35	Std Units	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	1
02/21/13	910	2013002424	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	Salinity-field	0.00	ppt	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
02/21/13	910	2013002424	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	Temp-field	-7.20	°C	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
02/21/13	882	2013002417	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	1600	count/100	Coliform was frozen upon receipt	V	1
02/21/13	1950	2013002428	Crk-Onondaga Creek @ Plum Street	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	2200	count/100	Coliform was frozen upon receipt	V	1

ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION
AMBIENT MONITORING PROGRAM
2013 ANNUAL FLAGGED DATA SUMMARY REPORT
ONONDAGA LAKE, TRIBUTARIES, & SENECA RIVER ANALYTICAL FLAGGED DATA SUMMARY
January 1, 2013 - December 31, 2013

Attachment 1

DATE	IC#	SAMPLE#	SOURCE	CATEGORY	PROJECT	PARAMETER	SRESULT	UNITS	REMARKS	FLAG	MRL
02/21/13	1940	2013002427	Crk-Onondaga Creek @ Water Street	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	36	count/100	Coliform was frozen upon receipt	V	1
02/21/13	1906	2013002419	Crk-Onondaga Lake Outlet 2 ft.	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	<5	count/100	Coliform was frozen upon receipt	V	1
02/21/13	904	2013002421	Crk-Tributary 5a @ State Fair Blvd	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	<5	count/100	Coliform was frozen upon receipt	V	1
02/26/13	1091	2013002621	Crk-Bloody Brk @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Biweekly	Stage Gauge	nc	Ft.	*Staff gage out of water.	*	
03/21/13	2105	2013004021	Crk-Onondaga Creek @ West Genesee mid transect	Onondaga Creeks	Trib Bacti Only	COND-field	327	umHos/cm	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
03/21/13	2105	2013004021	Crk-Onondaga Creek @ West Genesee mid transect	Onondaga Creeks	Trib Bacti Only	Salinity-field	0.16	ppt	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
03/21/13	2106	2013004022	Crk-Onondaga Creek @ West Genesee right transect	Onondaga Creeks	Trib Bacti Only	COND-field	6	umHos/cm	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
03/21/13	2106	2013004022	Crk-Onondaga Creek @ West Genesee right transect	Onondaga Creeks	Trib Bacti Only	Salinity-field	0.00	ppt	Field parameters 'V' flagged due to frigid temperature affecting probe.	V	
03/26/13	1091	2013004296	Crk-Bloody Brk @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Quarterly	CN-T	<0.003	mg/L	Sample acceptance criteria not met CN pH=12.95. Concentration procedure used for some metals.*Staff gage out of water.	V	0.003
03/26/13	1091	2013004296	Crk-Bloody Brk @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Quarterly	Stage Gauge	nc	Ft.	Sample acceptance criteria not met CN pH=12.95. Concentration procedure used for some metals.*Staff gage out of water.	*	
03/26/13	908	2013004278	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Quarterly	CN-T	<0.003	mg/L	Sample acceptance criteria not met CN pH=13.00, TDP pH=2.49. Concentration procedure used for some metals.	V	0.003
03/26/13	908	2013004278	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Quarterly	TDP	0.009	mg/L	Sample acceptance criteria not met CN pH=13.00, TDP pH=2.49. Concentration procedure used for some metals.	V	0.003
03/26/13	905	2013004284	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Quarterly	CN-T	<0.003	mg/L	Sample acceptance criteria not met CN pH=12.91. Concentration procedure used for some metals.	V	0.003
03/26/13	1906	2013004280	Crk-Onondaga Lake Outlet 2 ft.	Onondaga Creeks	Trib Quarterly	CN-T	<0.003	mg/L	Sample acceptance criteria not met CN pH=12.93. Concentration procedure used for some metals.	V	0.003
04/09/13	1091	2013005099	Crk-Bloody Brk @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Biweekly	TDP	0.049	mg/L	Sample acceptance criteria not met TDP Ph=2.35.	V	0.003
04/09/13	904	2013005089	Crk-Tributary 5a @ State Fair Blvd	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L	BOD5: Method blank outside acceptance criteria	V	2
04/16/13	919	2013005457	Lake 3m South - Duplicate	Quality Control	Lake Biweekly	TKN	0.568	mg/L	Sample is a duplicate of #2013005451. TKN laboratory duplicate: 0.493 mg/L.	N	0.15
04/23/13	1091	2013005852	Crk-Bloody Brk @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L	BOD5: LCS standard failed the acceptance criteria.	V	2
04/23/13	902	2013005843	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L	BOD5: LCS standard failed the acceptance criteria	V	2
04/23/13	902	2013005843	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Biweekly	Fe	0.123	mg/L		N	0.04
04/23/13	911	2013005849	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L	BOD5: LCS standard failed the acceptance criteria	V	2
04/23/13	908	2013005845	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Biweekly	BOD5	3	mg/L	BOD5: LCS standard failed the acceptance criteria	V	2
04/23/13	905	2013005847	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L	BOD5: LCS standard failed the acceptance criteria	V	2
04/23/13	910	2013005850	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L	BOD5: LCS standard failed the acceptance criteria	V	2
04/23/13	882	2013005844	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L	BOD5: LCS standard failed the acceptance criteria	V	2
04/23/13	1907	2013005846	Crk-Onondaga Lake Outlet 12 ft.	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L	BOD5: LCS standard failed the acceptance criteria	V	2
04/23/13	904	2013005848	Crk-Tributary 5a @ State Fair Blvd	Onondaga Creeks	Trib Biweekly	BOD5	4	mg/L	BOD5: LCS standard failed the acceptance criteria	V	2
04/23/13	904	2013005859	Crk-Tributary 5a @ State Fair Blvd - Duplicate	Quality Control	Trib Biweekly	BOD5	<2	mg/L	Sample is duplicate of #2013005848. BOD5: LCS standard failed the acceptance criteria	V	2
04/25/13	2106	2013005999	Crk-Onondaga Creek @ West Genesee right transect	Onondaga Creeks	Trib Bacti Only	COND-field	6	umHos/cm	Field parameters: Temperature probe not stabilized prior to data being logged.	V	
04/25/13	2106	2013005999	Crk-Onondaga Creek @ West Genesee right transect	Onondaga Creeks	Trib Bacti Only	DO-field	14.09	mg/L	Field parameters: Temperature probe not stabilized prior to data being logged.	V	
04/25/13	2106	2013005999	Crk-Onondaga Creek @ West Genesee right transect	Onondaga Creeks	Trib Bacti Only	pH-field	7.92	Std Units	Field parameters: Temperature probe not stabilized prior to data being logged.	V	1
04/25/13	2106	2013005999	Crk-Onondaga Creek @ West Genesee right transect	Onondaga Creeks	Trib Bacti Only	Salinity-field	0.00	ppt	Field parameters: Temperature probe not stabilized prior to data being logged.	V	
04/25/13	2106	2013005999	Crk-Onondaga Creek @ West Genesee right transect	Onondaga Creeks	Trib Bacti Only	Temp-field	5.38	°C	Field parameters: Temperature probe not stabilized prior to data being logged.	V	
04/29/13	933	2013005491	Lake 18m North	Onondaga Lake	Lake LL Hg	Hg-Diss	0.48	ng/L	J Flag:Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	J	0.0000005
04/29/13	924	2013005481	Lake 18m South	Onondaga Lake	Lake LL Hg	Hg-Diss	0.00000087	mg/L	Dissolved filters may have been rinsed with contaminated DI. Problems noted with lab water system.	N	0.0000005
04/29/13	915	2013005486	Lake Equip. Blk (Teflon Dunker-Glass)	Quality Control	Lake LL Hg	Hg	0.14	ng/l	J Flag:Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	J	
04/29/13	780	2013005485	Lake Field Blk (Teflon Dunker)	Quality Control	Lake LL Hg	Hg	<0.50	ng/l	U indicates that the analyte was analyzed for but not detected.	U	
04/29/13	780	2013005485	Lake Field Blk (Teflon Dunker)	Quality Control	Lake LL Hg	Hg-Diss	<0.50	mg/L	U indicates that the analyte was analyzed for but not detected.	U	0.0000005
04/29/13	780	2013005485	Lake Field Blk (Teflon Dunker)	Quality Control	Lake LL Hg	Hg-methyl	<0.05	ng/l	U indicates that the analyte was analyzed for but not detected.	U	

ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION
AMBIENT MONITORING PROGRAM
2013 ANNUAL FLAGGED DATA SUMMARY REPORT
ONONDAGA LAKE, TRIBUTARIES, & SENECA RIVER ANALYTICAL FLAGGED DATA SUMMARY
January 1, 2013 - December 31, 2013

Attachment 1

DATE	IC#	SAMPLE#	SOURCE	CATEGORY	PROJECT	PARAMETER	SRESULT	UNITS	REMARKS	FLAG	MRL
05/14/13	919	2013007025	Lake 3m South	Onondaga Lake	Lake Biweekly	TKN	0.506	mg/L	TKN laboratory duplicate: 0.585mg/L	N	0.15
05/14/13	1936	2013007032	Lake Tube Composite (South)	Onondaga Lake	Lake Biweekly	Chlorophyll-a	19.22	mg/m3	Results verified but samples exceed field duplicate acceptance criteria.	P	0.2
05/14/13	1936	2013007032	Lake Tube Composite (South)	Onondaga Lake	Lake Biweekly	Phaeophytin-a	<0.2	mg/m3	Results verified but samples exceed field duplicate acceptance criteria.	P	0.2
05/14/13	1936	2013007033	Lake Tube Composite (South) - Duplicate	Quality Control	Lake Biweekly	Chlorophyll-a	9.08	mg/m3	Sample is duplicate of #2013007032. Results verified but samples exceed field duplicate acceptance criteria.	P	0.2
05/14/13	1936	2013007033	Lake Tube Composite (South) - Duplicate	Quality Control	Lake Biweekly	Phaeophytin-a	<0.2	mg/m3	Sample is duplicate of #2013007032. Results verified but samples exceed field duplicate acceptance criteria.	P	0.2
05/20/13	1091	2013007374	Crk-Bloody Brk @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Biweekly	Stage Gauge	TNP	Ft.	Stage Gage not in water.	V	
06/13/13	910	2013008713	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Biweekly HF	TDP	0.01	mg/L	Sample acceptance criteria not met; TDP pH=2.73 , TP result failed field duplicate acceptance criteria. High suspended solids. TP filtered in the lab.	V	0.003
06/13/13	910	2013008713	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Biweekly HF	TP	0.083	mg/L	Sample acceptance criteria not met; TDP pH=2.73 , TP result failed field duplicate acceptance criteria. High suspended solids. TP filtered in the lab.	P	0.003
06/13/13	910	2013008721	Crk-Onondaga Creek @ Dorwin Ave.-Duplicate	Quality Control	Trib Biweekly HF	TP	0.066	mg/L	Sample is duplicate of 2013008713. TP result failed field duplicate acceptance criteria. High suspended solids. TP filtered in the lab. Refer to notification report# AMP06132013.	P	0.003
07/02/13	882	2013009869	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Biweekly HF	Na	78.5	mg/L		N	3
07/08/13	902	2013010159	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Bacti Only	COND-field	12	umHos/cm	In-Situ parameters SpCond and Salinity , conductivity probe was not fully submerged in water prior to data being logged.	V	
07/08/13	902	2013010159	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Bacti Only	Salinity-field	0.00	ppt	In-Situ parameters SpCond and Salinity , conductivity probe was not fully submerged in water prior to data being logged.	V	
07/30/13	905	2013011475	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	SRP	0.010	mg/L	SRP: Result verified but exceeded field duplicate limit. High suspended solids present. TP, NO2, NO2/NO3, & Chloride: filtered in the lab. SRP>TDP; fails analytical reasonableness however, the results are within the range of uncertainty of the tests.	P, X	0.001
07/30/13	905	2013011475	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	TDP	0.008	mg/L	SRP: Result verified but exceeded field duplicate limit. High suspended solids present. TP, NO2, NO2/NO3, & Chloride: filtered in the lab. SRP>TDP; fails analytical reasonableness however, the results are within the range of uncertainty of the tests.	X	0.003
07/30/13	905	2013011475	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	TOC	3.56	mg/L		X	0.5
07/30/13	905	2013011475	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	TOC-F	3.59	mg/L		X	0.5
07/30/13	905	2013011488	Crk-Nine Mile Creek @ Lakeland Rt 48 - Duplicate	Quality Control	Trib Biweekly	SRP	0.007	mg/L	Sample is duplicate of #2013011475. SRP: Result verified but exceeded field duplicate limit. High suspended solids present. TP, NO2, NO2/NO3, & Chloride: filtered in the lab. Charge Balance was verified, sample had unusually high solids.	P	0.001
07/30/13	905	2013011488	Crk-Nine Mile Creek @ Lakeland Rt 48 - Duplicate	Quality Control	Trib Biweekly	TOC	3.76	mg/L	Sample is duplicate of #2013011475.	X	0.5
07/30/13	905	2013011488	Crk-Nine Mile Creek @ Lakeland Rt 48 - Duplicate	Quality Control	Trib Biweekly	TOC-F	3.9	mg/L	Sample is duplicate of #2013011475.	X	0.5
07/30/13	882	2013011472	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Biweekly	TKN	0.4	mg/L	TP: filtered in the lab. TKN laboratory duplicate: 0.514 mg/L	N	0.15
08/13/13	1091	2013012418	Crk-Bloody Brk @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Biweekly HF	SO4	45.7	mg/L	SO4: improper preservation.	Q	10
08/20/13	918	2013012857	Lake 0m South	Onondaga Lake	Lake Biweekly	NH3-N	0.035	mg/L	NH3-N reprepmed 8/27; matrix spike and spike duplicate exceed acceptance limits.	N	0.01
08/20/13	919	2013012858	Lake 3m South	Onondaga Lake	Lake Biweekly	TIC	34.6	mg/L		M	0.5
09/10/13	908	2013014125	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Biweekly	BOD5	4	mg/L		B1	2
09/10/13	905	2013014127	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	BOD5	<2	mg/L		B1	2
09/10/13	904	2013014128	Crk-Tributary 5a @ State Fair Blvd	Onondaga Creeks	Trib Biweekly	BOD5	3	mg/L		B1	2
09/17/13	940	2013012770	River Blank Dunker (Crew A)	Quality Control	Annual River	Chloride	17.9	mg/L	Sample had a laboratory pH = 3.3, the low pH and high Chloride indicate that the container was rinsed with HCl but not properly rinsed with DI water afterwards	B1	1
09/17/13	951	2013012771	River Buoy #269 Top	River Monitoring	Annual River	TOC	3.36	mg/L	TOC-TOC-F: failed analytical reasonableness, results are outside the range of uncertainty, results repeated and verified.	X	0.5
09/17/13	951	2013012771	River Buoy #269 Top	River Monitoring	Annual River	TOC-F	3.67	mg/L	TOC-TOC-F: failed analytical reasonableness, results are outside the range of uncertainty, results repeated and verified.	X	0.5
09/17/13	955	2013012773	River Buoy #316 Top	River Monitoring	Annual River	Chloride	84.3	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	B1	1
09/17/13	955	2013012775	River Buoy #316 Top-Duplicate	Quality Control	Annual River	Chloride	83.7	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	B1	1
09/17/13	955	2013012773	River Buoy #316 Top	River Monitoring	Annual River	Chlorophyll-a	26.17	mg/m3	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	N	0.2
09/17/13	955	2013012775	River Buoy #316 Top-Duplicate	Quality Control	Annual River	Chlorophyll-a	33.11	mg/m3	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	N	0.2
09/17/13	955	2013012773	River Buoy #316 Top	River Monitoring	Annual River	Phaeophytin-a	1.50	mg/m3	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	N	0.2
09/17/13	955	2013012775	River Buoy #316 Top-Duplicate	Quality Control	Annual River	Phaeophytin-a	1.28	mg/m3	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	N	0.2

ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION
AMBIENT MONITORING PROGRAM
2013 ANNUAL FLAGGED DATA SUMMARY REPORT
ONONDAGA LAKE, TRIBUTARIES, & SENECA RIVER ANALYTICAL FLAGGED DATA SUMMARY
January 1, 2013 - December 31, 2013

Attachment 1

DATE	IC#	SAMPLE#	SOURCE	CATEGORY	PROJECT	PARAMETER	SRESULT	UNITS	REMARKS	FLAG	MRL
09/17/13	956	2013012774	River Buoy #316 Bottom	River Monitoring	Annual River	Chloride	83.1	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	B1	1
09/17/13	956	2013012776	River Buoy #316 Bottom-Duplicate	Quality Control	Annual River	Chloride	82.6	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	B1	1
09/17/13	961	2013012777	River Buoy #412 Top	River Monitoring	Annual River	Chloride	83.7	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	B1	1
09/17/13	961	2013012777	River Buoy #412 Top	River Monitoring	Annual River	NH3-N	0.0420	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	N	0.01
09/17/13	962	2013012778	River Buoy #412 Bottom	River Monitoring	Annual River	Chloride	83.7	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	B1	1
09/17/13	969	2013012781	River Buoy #212 Top	River Monitoring	Annual River	Chloride	25.2	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	B1	1
09/17/13	970	2013012782	River Buoy #212 Bottom	River Monitoring	Annual River	Chloride	26.0	mg/L	B1: Chloride blank concentration exceeds acceptable limits and associated sample result is <5 x blank concentration.	B1	1
09/17/13	973	2013012783	River Buoy #240 Top	River Monitoring	Annual River	Chlorophyll-a	20.83	mg/m3		N	0.2
09/17/13	973	2013012783	River Buoy #240 Top	River Monitoring	Annual River	Phaeophytin-a	2.35	mg/m3		N	0.2
09/18/13	923	2013014820	Lake 15m South	Onondaga Lake	Lake Biweekly	TKN	1.21	mg/L	TKN and TKN-F reprepped on 9/26. TKN<TKN-F; fails analytical reasonableness however the results are within the range of uncertainty of the tests.	X	0.15
09/18/13	923	2013014820	Lake 15m South	Onondaga Lake	Lake Biweekly	TKN-F	1.27	mg/L	TKN and TKN-F reprepped on 9/26. TKN<TKN-F; fails analytical reasonableness however the results are within the range of uncertainty of the tests.	X	0.15001
09/18/13	924	2013014821	Lake 18m South	Onondaga Lake	Lake Biweekly	TKN	1.31	mg/L	TKN<TKN-F; Failed analytical reasonableness however the results are within the range of uncertainty of the tests.	X	0.15
09/18/13	924	2013014821	Lake 18m South	Onondaga Lake	Lake Biweekly	TKN-F	1.33	mg/L	TKN<TKN-F; Failed analytical reasonableness however the results are within the range of uncertainty of the tests.	X	0.15001
09/24/13	902	2013014142	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Tributary LL Hg	Hg	0.00000060	mg/L	X Flag: Hg<Hg-Diss; Fails analytical reasonableness and results are outside the range of uncertainty.	X	0.0000005
09/24/13	902	2013014142	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Tributary LL Hg	Hg-Diss	0.00000072	mg/L	X Flag: Hg<Hg-Diss; Fails analytical reasonableness and results are outside the range of uncertainty.	X	0.0000005
09/24/13	902	2013015212	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Quarterly	NH3-N	0.062	mg/L	NH3-N: matrix spike and spike duplicate exceed acceptable limits.	N	0.01
09/24/13	902	2013015212	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Quarterly	TIC	66.9	mg/L		M	0.5
09/24/13	908	2013015214	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Quarterly	NH3-N	0.205	mg/L		M	0.01
09/24/13	910	2013014149	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Tributary LL Hg	Hg	<0.00000050	mg/L	X Flag: Hg<Hg-Diss; Fails analytical reasonableness however, the results are within the range of uncertainty of the tests.	X	0.0000005
09/24/13	910	2013014149	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Tributary LL Hg	Hg-Diss	0.00000055	mg/L	X Flag: Hg<Hg-Diss; Fails analytical reasonableness however, the results are within the range of uncertainty of the tests.	X	0.0000005
09/24/13	882	2013015213	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Quarterly	TOC	3.23	mg/L	TOC<TOC-F; Failed analytical reasonableness, however the results are within the range of uncertainty of the tests.	X	0.5
09/24/13	882	2013015213	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Quarterly	TOC-F	3.29	mg/L	TOC<TOC-F; Failed analytical reasonableness, however the results are within the range of uncertainty of the tests.	X	0.5
09/24/13	1907	2013014145	Crk-Onondaga Lake Outlet 12 ft.	Onondaga Creeks	Tributary LL Hg	Hg	<0.00000050	mg/L	X Flag: Hg<Hg-Diss; Fails analytical reasonableness and results are outside the range of uncertainty.	X	0.0000005
09/24/13	1907	2013014145	Crk-Onondaga Lake Outlet 12 ft.	Onondaga Creeks	Tributary LL Hg	Hg-Diss	0.00000063	mg/L	X Flag: Hg<Hg-Diss; Fails analytical reasonableness and results are outside the range of uncertainty.	X	0.0000005
09/24/13	796	2013014151	Crk-Sawmill Crk @ Onondaga Lake Rec. Trail	Onondaga Creeks	Tributary LL Hg	Hg	0.00000061	mg/L	X Flag: Hg<Hg-Diss; Fails analytical reasonableness however, the results are within the range of uncertainty of the tests.	X	0.0000005
09/24/13	796	2013014151	Crk-Sawmill Crk @ Onondaga Lake Rec. Trail	Onondaga Creeks	Tributary LL Hg	Hg-Diss	0.00000062	mg/L	X Flag: Hg<Hg-Diss; Fails analytical reasonableness however, the results are within the range of uncertainty of the tests.	X	0.0000005
10/01/13	927	2013015568	Lake 0m North	Onondaga Lake	Lake Quarterly	TP	0.017	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	918	2013015555	Lake 0m South	Onondaga Lake	Lake Quarterly	TP	0.020	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	931	2013015572	Lake 12m North	Onondaga Lake	Lake Quarterly	TP	0.024	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	922	2013015559	Lake 12m South	Onondaga Lake	Lake Quarterly	TP	0.022	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	932	2013015573	Lake 15m North	Onondaga Lake	Lake Quarterly	TP	0.022	mg/L	TP filtered in the lab. Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	923	2013015560	Lake 15m South	Onondaga Lake	Lake Quarterly	TP	0.027	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	933	2013015574	Lake 18m North	Onondaga Lake	Lake Quarterly	TP	0.027	mg/L	TP filtered in the lab. Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	924	2013015561	Lake 18m South	Onondaga Lake	Lake Quarterly	TP	0.027	mg/L	TP filtered in the lab. Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	928	2013015569	Lake 3m North	Onondaga Lake	Lake Quarterly	TP	0.018	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	919	2013015556	Lake 3m South	Onondaga Lake	Lake Quarterly	TIC	35.6	mg/L		M	0.5
10/01/13	919	2013015556	Lake 3m South	Onondaga Lake	Lake Quarterly	TP	0.020	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003

ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION
AMBIENT MONITORING PROGRAM
2013 ANNUAL FLAGGED DATA SUMMARY REPORT
ONONDAGA LAKE, TRIBUTARIES, & SENECA RIVER ANALYTICAL FLAGGED DATA SUMMARY
January 1, 2013 - December 31, 2013

Attachment 1

DATE	IC#	SAMPLE#	SOURCE	CATEGORY	PROJECT	PARAMETER	SRESULT	UNITS	REMARKS	FLAG	MRL
10/01/13	919	2013015562	Lake 3m South - Duplicate	Quality Control	Lake Quarterly	TP	0.019	mg/L	Sample is duplicate of #2013015556. Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	929	2013015570	Lake 6m North	Onondaga Lake	Lake Quarterly	TP	0.017	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	920	2013015557	Lake 6m South	Onondaga Lake	Lake Quarterly	TP	0.026	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	930	2013015571	Lake 9m North	Onondaga Lake	Lake Quarterly	TP	0.016	mg/L	Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	921	2013015558	Lake 9m South	Onondaga Lake	Lake Quarterly	TP	0.018	mg/L	TDP & TP reprepmed 10/4. Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample result is <5x Blank Concentration.	B1	0.003
10/01/13	917	2013015554	Lake Equip. Blk (Pump)	Quality Control	Lake Quarterly	TP	0.008	mg/L	TP result verified. Equipment Pump Blank concentration of TP exceeds acceptable limits. Associated sample results <5x Blank Concentration will be flagged.	B1	0.003
10/08/13	905	2013016227	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly HF	FCOLI-MF	20600	count/100	FCOLI-MF count exceeds 200 CFU per membrane. TP filtered in the lab.	V	1
10/08/13	910	2013016230	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Biweekly HF	SRP	0.030	mg/L	SRP result verified. TP filtered in the lab. SRP: Failed field dup criteria of <20% RPD. TDP<SRP; Fails limnological reasonableness however results are within the range of uncertainty of the tests.	P, X	0.001
10/08/13	910	2013016230	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Biweekly HF	TDP	0.026	mg/L	SRP result verified. TP filtered in the lab. SRP: Failed field dup criteria of <20% RPD. TDP<SRP; Fails limnological reasonableness however results are within the range of uncertainty of the tests.	X	0.003
10/08/13	910	2013016240	Crk-Onondaga Creek @ Dorwin Ave. - Duplicate	Quality Control	Trib Biweekly HF	SRP	0.015	mg/L	Sample is a duplicate of #2013016230. SRP result verified. TP filtered in the lab. SRP: Failed field dup criteria of <20% RPD.	P	0.001
10/08/13	882	2013016224	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Biweekly HF	TIC	55.3	mg/L		M	0.5
10/15/13	919	2013016583	Lake 3m South	Onondaga Lake	Lake Biweekly	TIC	36.5	mg/L		M	0.5
10/22/13	902	2013017006	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Biweekly	Fe	0.220	mg/L		N	0.04
10/22/13	905	2013017010	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	BOD5	2	mg/L		B1	2
10/22/13	882	2013017007	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Biweekly	BOD5	3	mg/L		B1	2
10/30/13	915	2013017394	Lake Equip. Blk (Teflon Dunker-Glass)	Quality Control	Lake LL Hg	Hg	<0.5	ng/L	U: Indicates the analyte was analyzed but not detected. J: Result is less than RL but greater than or equal to MDL. B: Compound was found in the blank and sample.	U	
10/30/13	915	2013017394	Lake Equip. Blk (Teflon Dunker-Glass)	Quality Control	Lake LL Hg	Hg-Diss	<0.5	ng/L	U: Indicates the analyte was analyzed but not detected. J: Result is less than RL but greater than or equal to MDL. B: Compound was found in the blank and sample.	U	0.0000005
10/30/13	915	2013017394	Lake Equip. Blk (Teflon Dunker-Glass)	Quality Control	Lake LL Hg	Hg-methyl	<0.05	ng/L	U: Indicates the analyte was analyzed but not detected. J: Result is less than RL but greater than or equal to MDL. B: Compound was found in the blank and sample.	J, B	
10/30/13	780	2013017393	Lake Field Blk (Teflon Dunker)	Quality Control	Lake LL Hg	Hg	<0.5	ng/L	U: Indicates the analyte was analyzed but not detected. J: Result is less than RL but greater than or equal to MDL. B: Compound was found in the blank and sample.	U	
10/30/13	780	2013017393	Lake Field Blk (Teflon Dunker)	Quality Control	Lake LL Hg	Hg-Diss	<0.5	ng/L	U: Indicates the analyte was analyzed but not detected. J: Result is less than RL but greater than or equal to MDL. B: Compound was found in the blank and sample.	U	0.0000005
10/30/13	780	2013017393	Lake Field Blk (Teflon Dunker)	Quality Control	Lake LL Hg	Hg-methyl	<0.05	ng/L	U: Indicates the analyte was analyzed but not detected. J: Result is less than RL but greater than or equal to MDL. B: Compound was found in the blank and sample.	J, B	
11/05/13	911	2013017764	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Tributary LL Hg	Hg	<0.00000050	mg/L	Hg<Hg-Diss; Fails analytical reasonableness, the results are outside the range of uncertainty of the tests.	X	0.0000005
11/05/13	911	2013017764	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Tributary LL Hg	Hg-Diss	0.00000061	mg/L	Hg<Hg-Diss; Fails analytical reasonableness, the results are outside the range of uncertainty of the tests.	X	0.0000005
11/05/13	1907	2013017745	Crk-Onondaga Lake Outlet 12 ft.	Onondaga Creeks	Trib Quarterly	BOD5	2	mg/L		B1	2
11/05/13	796	2013017767	Crk-Sawmill Crk @ Onondaga Lake Rec. Trail	Outlying Creeks	Tributary LL Hg	Hg	0.00000076	mg/L	Hg<Hg-Diss; Fails analytical reasonableness, however the results are within the range of uncertainty of the tests.	X	0.0000005
11/05/13	796	2013017767	Crk-Sawmill Crk @ Onondaga Lake Rec. Trail	Outlying Creeks	Tributary LL Hg	Hg-Diss	0.00000084	mg/L	Hg<Hg-Diss; Fails analytical reasonableness, however the results are within the range of uncertainty of the tests.	X	0.0000005
11/13/13	919	2013018125	Lake 3m South	Onondaga Lake	Lake Quarterly	TIC	40.7	mg/L		M	0.5
11/19/13	911	2013018438	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	TIC	67.2	mg/L		M	0.5
11/26/13	919	2013018761	Lake 3m South - Duplicate	Quality Control	Lake Biweekly	TIC	40.2	mg/L	Sample is a duplicate of #2013018755.	M	0.5
12/03/13	1091	2013018966	Crk-Bloody Brk @ Onondaga Lake Parkway Upstream	Onondaga Creeks	Trib Biweekly	TKN	0.431	mg/L	TKN: LFB exceeded acceptable limits.	V	0.15
12/03/13	902	2013018956	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Biweekly	TKN	<0.15	mg/L	TKN: LFB exceeded acceptable limits; lab duplicate: 0.176 mg/L.	V, N	0.15
12/03/13	911	2013018962	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	SRP	0.008	mg/L	TDP reprepmed 12/5. TKN: LFB exceeded acceptable limits. TDP result verified. TDP<SRP; Fails limnological reasonableness, however the results are within the range of uncertainty of the tests.	X	0.001

ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION
AMBIENT MONITORING PROGRAM
2013 ANNUAL FLAGGED DATA SUMMARY REPORT
ONONDAGA LAKE, TRIBUTARIES, & SENECA RIVER ANALYTICAL FLAGGED DATA SUMMARY
January 1, 2013 - December 31, 2013

Attachment 1

DATE	IC#	SAMPLE#	SOURCE	CATEGORY	PROJECT	PARAMETER	SRESULT	UNITS	REMARKS	FLAG	MRL
12/03/13	911	2013018962	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	TDP	0.007	mg/L	TDP reprep'd; results verified. TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests. TDP<SRP; Fails limnological reasonableness, however the results are within the range of uncertainty of the tests.	X	0.003
12/03/13	911	2013018962	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	TKN	0.303	mg/L	TDP reprep'd; results verified. TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests. TDP<SRP; Fails limnological reasonableness, however the results are within the range of uncertainty of the tests.	V	0.15
12/03/13	905	2013018960	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	Stage Gauge	na	Ft.	*Stage gauge unavailable.	*	
12/03/13	905	2013018960	Crk-Nine Mile Creek @ Lakeland Rt 48	Onondaga Creeks	Trib Biweekly	TKN	0.493	mg/L	TKN: LFB exceeded acceptable limits.	V	0.15
12/03/13	910	2013018963	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Biweekly	TKN	0.705	mg/L	TKN: LFB exceeded acceptable limits.	V	0.15
12/03/13	882	2013018957	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Biweekly	TKN	0.261	mg/L	TKN: LFB exceeded acceptable limits; lab duplicate: 0.176 mg/L.	V, N	0.15
12/03/13	1907	2013018959	Crk-Onondaga Lake Outlet 12 ft.	Onondaga Creeks	Trib Biweekly	TKN	0.52	mg/L	TKN: LFB exceeded acceptable limits.	V	0.15
12/03/13	904	2013018961	Crk-Tributary 5a @ State Fair Blvd	Onondaga Creeks	Trib Biweekly	TKN	0.555	mg/L	TKN: LFB exceeded acceptable limits.	V	0.15
12/12/13	1960	2013019468	Crk-Harbor Brook @ Bellevue Avenue	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	136	count/100	Sample contained ice upon receipt	Q	1
12/12/13	902	2013019458	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	360	count/100	Sample frozen upon receipt	Q	1
12/12/13	911	2013019463	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	118	count/100	Sample frozen upon receipt	Q	1
12/12/13	908	2013019460	Crk-Ley Creek @ Park Street	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	2100	count/100	Sample frozen upon receipt	Q	1
12/12/13	910	2013019464	Crk-Onondaga Creek @ Dorwin Ave.	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	9	count/100	Sample frozen upon receipt	Q	1
12/12/13	882	2013019459	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Bacti Only	FCOLI-MF	145	count/100	Sample frozen upon receipt	Q	1
12/17/13	902	2013019658	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Biweekly	SRP	0.014	mg/L	TDP reprep'd; results verified. TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests. TDP<SRP; Fails limnological reasonableness, however the results are within the range of uncertainty of the test	X	0.001
12/17/13	902	2013019658	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Biweekly	TDP	0.013	mg/L	TDP reprep'd; results verified. TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests. TDP<SRP; Fails limnological reasonableness, however the results are within the range of uncertainty of the test	X	0.003
12/17/13	902	2013019658	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Biweekly	TOC	1.05	mg/L	TDP reprep'd; results verified. TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests. TDP<SRP; Fails limnological reasonableness, however the results are within the range of uncertainty of the test	X	0.5
12/17/13	902	2013019658	Crk-Harbor Brook @ Hiawatha	Onondaga Creeks	Trib Biweekly	TOC-F	1.06	mg/L	TDP reprep'd; results verified. TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests. TDP<SRP; Fails limnological reasonableness, however the results are within the range of uncertainty of the test	X	0.5
12/17/13	911	2013019665	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	TIC	68.0	mg/L	TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests.	M	0.5
12/17/13	911	2013019665	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	TOC	0.803	mg/L	TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests.	X	0.5
12/17/13	911	2013019665	Crk-Harbor Brook @ Velasko Road	Onondaga Creeks	Trib Biweekly	TOC-F	0.814	mg/L	TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests.	X	0.5
12/17/13	882	2013019659	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Biweekly	TOC	1.25	mg/L	TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests.	X	0.5
12/17/13	882	2013019659	Crk-Onondaga Creek @ Kirkpatrick	Onondaga Creeks	Trib Biweekly	TOC-F	1.3	mg/L	TOC<TOC-F; Fails analytical reasonableness, however results are within the range of uncertainty of the tests.	X	0.5