ICR Treatment Study
Summary Report

City of Greensboro

N.L. Mitchell Water Treatment Plant

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Evaluation of Granular Activated Carbon Adsorption of Disinfection Byproduct Precursors for Compliance with the Information Collection Rule

Conducted during the period of 4/14/98 through 1/5/99

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N.L. Mitchell Water Treatment Plant, 447

Attachment: 1 compact disc containing *Data Collection Spreadsheet*, *Treatment Study Summary Report Spreadsheet*, this report in portable document format (PDF), and laboratory reports listing all analytical results and QC data

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3 List of Abbreviations

°C	degrees Celsius
µg	microgram
µL	microliter
µm	micrometer
A_0	logistic function parameter
A_f	logistic function parameter
B	logistic function parameter
BCAA	bromochloroacetic acid
BDCM	bromodichloromethane
BMRL	below minimum reporting level
BV	bed volume
BV_{50}	bed volumes to 50 percent TOC breakthrough
C	concentration
$\overline{C}$	blended effluent concentration
C1	larger of two observed values for RPD calculation
C2	smaller of two observed values for RPD calculation
CCC	continuing calibration check
CCI	construction cost index
CDBAA	chlorodibromoacetic acid
$CHBr_3$	bromoform
$CHCl_3$	chloroform
Cl^-	chloride
CLD	chlorine demand
cm	centimeter
cu	cubic
CUR	carbon usage rate
D	column inner diameter
d	day
d	diameter
D	logistic function parameter
DBAA	dibromoacetic acid
DBCM	dibromochloromethane
DBP	disinfection byproduct
DCAA	dichloroacetic acid
DCBAA	dichlorobromoacetic acid
DS	distribution system
EBCT	empty-bed contact time
EC	enhanced coagulation
EPA	Environmental Protection Agency
ft	feet
g	gram
GAC	granular activated carbon
gal	gallon

gpm	gallons per minute
HAA	haloacetic acid
HAA5	sum of five haloacetic acids: MCAA, DCAA, TCAA, MBAA, DBAA
HAA6	sum of five haloacetic acids: MCAA, DCAA, TCAA, MBAA, DBAA, BCAA
HAA9	sum of five haloacetic acids: MCAA, DCAA, TCAA, MBAA, DBAA, BCAA, DCBAA, CDBAA, TBAA
hr	hour
$_{i}$	individual contactor
ICR	Information Collection Rule
in.	inch
$_{inf}$	influent
l	bed length
L	liter
$_{LC}$	large column
m	mass
$_{max}$	maximum
MBAA	monobromoacetic acid
MCAA	monochloroacetic acid
MCL	maximum contaminant level
mg	milligram
MG	million gallons
MGD	million gallons per day
$_{min}$	minimum
min	minute
mL	milliliter
mm	millimeter
MRL	minimum reporting level
MtBE	methyl tert-butyl ether
$_{n}$	number of contactors
NA	not applicable
NA	not analyzed
NB	not backwashed
ntu	nephelometric turbidity unit
O&M	operations and maintenance
$_{p}$	particle
PE	performance evaluation
PPI	Producers Price Index
Q	flow rate
QA/QC	quality assurance/quality control
Re	Reynold's number
RPD	relative percent difference
RSD	relative standard deviation
RSSCT	rapid small-scale column test
$_{RT}$	run time
$_{SC}$	small column
SDS	simulated distribution system

sec	second
SF	scaling factor
SM	*Standard Methods*
SUVA	specific ultraviolet absorbance
t	time
$_T$	total
TBAA	tribromoacetic acid
TCAA	trichloroacetic acid
THM	trihalomethane
THM4	sum of four trihalomethanes: $CHCl_3$, BDCM, DBCM, and $CHBr_3$
TOC	total organic carbon
TOC_0	influent total organic carbon
TOX	total organic halide
TSUVA	total specific ultraviolet absorbance
UV	ultraviolet absorbance
UV_{254}	ultraviolet absorbance at 254 nm
ε	bed porosity
ν	kinematic viscosity
ρ	density

4 *Conclusions and Recommendations*

4 Conclusions and Recommendations

As required by the Information Collection Rule (ICR), a treatment study was conducted by Summers & Hooper, Inc. (S&H) to evaluate the removal of disinfection byproduct (DBP) precursors by granular activated carbon (GAC) for the N.L. Mitchell Water Treatment Plant, operated by the City of Greensboro. The rapid small-scale column test (RSSCT) was utilized as the bench-scale method to simulate full-scale GAC performance. The treatment study was performed off-site at S&H's laboratory facilities in Cincinnati, Ohio. It was designed and conducted as required by section 141.141(3) of the ICR, published in the May 14, 1996 Federal Register. A bituminous coal-based GAC, F-400, manufactured by Calgon Carbon Corporation was investigated. DBP formation by disinfection with free chlorine was simulated utilizing site-specific chlorination conditions designed to match distribution system conditions. The procedures followed were those contained in the *GAC Precursor Removal Studies* section of the *ICR Manual for Bench- and Pilot-Scale Treatment Studies* (USEPA, 1996a), and all analyses were conducted following approved methods and as required by the *ICR/DBP Analytical Methods Manual* (USEPA, 1996b).

An electronic deliverable is included as an attachment to this report. It includes: this report in portable document format (PDF) along with a laboratory report listing all data analyzed during this treatment study and all required QA/QC information; the *ICR Treatment Studies Data Collection Spreadsheets*, with all data input as required by EPA; and the *Treatment Study Summary Report Spreadsheet*, with all data input as required by EPA.

Four quarterly sessions were conducted to evaluate the of impact seasonal variability in source water quality on GAC performance for DBP precursor control. During each session, two empty-bed contact times (EBCTs) were evaluated (10 and 20 minutes), except during the October session when EBCTs of 7.2 and 14.4 minutes were evaluated. The primary source waters to the N.L. Mitchell Water Treatment Plant during the treatment study were Lake Daniel Reservoir and Lake Brandt Reservoir.

GAC reactivation frequency is typically based on compliance with Stage 1 or the placeholders for Stage 2 DBP maximum contaminant levels (MCLs). During this study, only three of the eight contactors operated exceeded the placeholders for Stage 2 total trihalomethane (THM4) MCL (32 µg/L, using a 20 percent safety factor). For these runs, the MCL was exceeded after 155 to 253 full-scale equivalent days of operation. The placeholder for Stage 2 sum of five haloacetic acids (HAA5) was not exceeded (24 µg/L, using a 20 percent safety factor). In practice, multiple contactors are operated in staggered fashion and their effluents are blended prior to chlorination. Therefore, run times to a given effluent criterion are extended as compared to a single contactor, because the poorer quality water from "older" contactors is blended with water from "new" contactors. Based on this configuration, the placeholders for Stage 2 DBP MCL were not exceeded during any run, even after an extrapolation procedure was applied. The maximum extrapolated run time ranged from 13 to 22 months for the 10 minute EBCT contactors, and 22 to 31 months for the 20 minute EBCT contactor. All run times given in this report reflect meeting the placeholder for Stage 2 THM4 or HAA5 MCL with a 20 percent safety factor, 32 and 24 µg/L, respectively

The total costs for GAC treatment were estimated using an EPA model, which included capital and operation and maintenance (O&M) costs, based on the maximum extrapolated run time of multiple contactors operated in staggered fashion. For 10 minute EBCT contactors, the estimate for total costs for GAC treatment averaged 32 cents/1,000 gal for steel pressure contactors. For 20 minute EBCT contactors, total costs averaged 50 cents/1,000 gal for steel pressure contactors. The costs for 20 minute EBCT contactors were higher due to the higher capital costs associated with the larger contactors.

A relative measure of GAC performance is the number of bed volumes to 50 percent total organic carbon (TOC) breakthrough, BV_{50}. This parameter can correlate GAC performance to the influent TOC concentration. Typically, GAC performance improves with decreasing influent TOC concentration, as the loading on the GAC contactor is decreased. The measured BV_{50} values for GAC runs in this study was compared to the BV_{50} of an average water, correlated to the influent TOC concentration, which is available in the literature for over 20 source waters and adsorption pH between 7 and 8. For the 10 minute EBCT contactors, mean GAC performance based on BV_{50} values was better than that predicted for an average water. BV_{50} values ranged from 3 percent lower than predicted to 103 percent higher than predicted. At a 20 minute EBCT, BV_{50} values averaged 72 percent higher than predicted.

GAC influent TOC concentration varied from 1.5 to 2.1mg/L during the four sessions evaluated, and bromide concentration varied from below minimum reporting level to 28 µg/L. GAC treatment does not remove bromide, while TOC is adsorbed, resulting in higher GAC effluent bromide to TOC ratios as compared to the GAC influent. Due to this increase, GAC effluent formed DBPs may undergo shifts in speciation to higher concentrations of the more brominated DBP species. In some cases, such as for bromodichloromethane, effluent formed concentrations were measured higher than that formed in the influent. However, the effluent formed concentrations were very low, less than 6 µg/L. It is important to track the breakthrough behavior of specific DBP species, because some may be of potential health concern and a MCL could be set for a specific DBP species, although during this study the formed levels of individual brominated DBP species were very low, not exceeding 12 µg/L in the GAC effluent of any run.

By plotting effluent concentrations divided by their respective influent concentrations, a normalized breakthrough evaluation can be performed. This evaluation yields insight into the relative breakthrough patterns of TOC, ultraviolet absorbance at 254 nm (UV_{254}), and simulated distribution system (SDS) DBPs, indicating whether DBP surrogates can serve as direct or conservative indicators of SDS-DBP breakthrough. The evaluation performed during this study showed that SDS-THM4 breakthrough occasionally exceeded TOC breakthrough, but overall TOC breakthrough served as a conservative indicator of SDS-DBP. UV_{254} served as an excellent direct indicator of SDS-TOX breakthrough.

5 *Background Information*

5 Background Information

5.1 Treatment Plant Description

The City of Greensboro, NC, operates the N.L. Mitchell Water Treatment Plant, a conventional treatment plant that provides water for 205,000 in the City of Greensboro and in the surrounding communities of Gibsonville and Jamestown. The state approved plant capacity is 24 MGD; average flow during 1998 was 13.4 MGD. The primary source waters for the treatment plant are the Lake Daniel Reservoir and the Lake Brandt Reservoir.

Figure 1 shows a simple treatment plant schematic. Treatment consists of alum added at rapid mix, followed by flocculation and sedimentation. After sedimentation, sodium hypochlorite is added for disinfection and calcium hydroxide is added for pH adjustment. After filtration hydrofluorosilic acid and phosphate are added. The water is held in a finished water reservoir before it is disinfected again with sodium hypochlorite and distributed.

5.1.1 Treatment Plant Design Information

Table 1 summarizes the N.L. Mitchell Water Treatment Plant design data. The data presented is based on data from report A.2 "Design Plant Parameters" and report A.3 "Design Plant Chemical Parameters," of the *ICR Water Utility Database System*.

5.1.2 Treatment Challenges Facing Plant

Some of the challenges faced by the City of Greensboro in operating the N.L. Mitchell Water Treatment Plant are meeting new turbidity standards, complying with enhanced coagulation, and operating with only 3 MG of finished water storage. The City of Greensboro is adding another finished water storage unit which will increase storage to 14 MG, increasing detention time and maintaining flow equalization. However, the additional storage will increase residence times and may increase distribution system DBP formation. The City of Greensboro is also refurbishing the settling basin to provide the ability to remove sludge during operation, which will yield an improved clarified settled water. Other projects include optimizing filter media for turbidity removal and optimizing coagulant and coagulant aids for turbidity control.

5.2 Tabular Summary of Source and Finished Water Quality

Tables 2 and 3 summarize average source and finished water quality at the N.L. Mitchell Water Treatment Plant, based on sampling between July 1997 and December 1998. These data constitute preliminary ICR monitoring results and have not yet undergone EPA review. The source water is characterized by moderate TOC levels, averaging 4.3 mg/L. Bromide levels are low, averaging 26 µg/L. The N.L. Mitchell Water Treatment Plant averaged 55 percent TOC removal, yielding an average treated water TOC concentration of 1.8 mg/L. UV_{254} removal averaged 64 percent. The average source water UV_{254} was 0.083 1/cm, while that for the

finished water was 0.026 1/cm. The source water specific UV absorbance (TSUVA, defined as UV_{254}/TOC) averaged 2.0 L/mg-m. This was reduced to an average of 1.4 L/mg-m after conventional treatment and filtration. Normally, dissolved organic carbon (DOC) is used to calculate SUVA, defined as UV_{254}/DOC. Since DOC is always less than or equal to TOC, TSUVA will always be greater than or equal to SUVA as defined in the Interim Enhanced Surface Water Treatment Rule.

Distribution system THM4 (DS-THM4) levels ranged from 20 to 107 µg/L and averaged 50 µg/L, below the Stage 1 MCL of 80 µg/L or 64 µg/L with a 20 percent safety factor, and exceeding the placeholder for Stage 2 MCL of 40 µg/L or 32 µg/L with a 20 percent safety factor. DS-HAA5 averaged 25 µg/L, lower than the Stage 1 MCL of 60 µg/L or 48 µg/L with a 20 percent safety factor, and lower than the placeholder for Stage 2 MCL of 30 µg/L or 24 µg/L with a 20 percent safety factor. DS-HAA5 concentrations also showed a wide seasonal variability.

Unit Process	Process Description
Rapid Mix	Type of Mixer: Mechanical Baffling Type: Unbaffled (Mixed tank) Liquid Volume (gal): 95,744 Short Circuiting Factor: NA_V Mean Velocity Gradient (sec^{-1}): 130 Coagulant Addition: Aluminum sulfate (alum) Coagulant Dose (mg/L): 34
Flocculation	Type of Mixer: Mechanical Liquid Volume (gal): 463,760 Short Circuiting Factor: NA_V Baffling Type: Superior (Serpentine) Stage Sequence Number: 1 - 5 Stage Mean Velocity Gradient (sec^{-1}): 60 Stage Liquid Volume (gal): 92,796
Sedimentation	Surface Area (ft^2): 20,382 Liquid Volume (gal): 2,446,476 Baffling Type: Unbaffled
Disinfectant Addition	Chemical Code: Sodium hypochlorite Measurement Formula: Cl_2 Dose Rate (mg/L): 2.0
Filtration	Surface Area (ft^2): 4,394 Liquid Volume (gal): 89,076 Total Media Depth (in): 30 Media Type: Dual Minimum Water Depth to Top of Media (ft): 2.7 Depth from Top of Media to Top of Backwash Trough (ft): 2.7
Clearwell	Surface Area (ft^2): 31,400 Liquid Volume (gal): 3,000,000 Minimum Liquid Volume (gal): 1,300,000 Baffling Type: Average Short Circuiting Factor: NA_V Covered Indicator Code: Yes
Disinfectant Addition	Chemical Code: Sodium hypochlorite Measurement Formula: Cl_2 Dose Rate (mg/L): 2.0

NA_V: Not available

Table 1 Summary of treatment plant design data for the N.L. Mitchell Water Treatment Plant

Water quality parameter	Mean	Standard deviation	Minimum	Maximum	Count
Temperature (°C)	19	8	7	31	17
pH	7.6	0.5	7.1	8.7	17
Alkalinity (mg/L as $CaCO_3$)	33	6	22	41	17
Total hardness (mg/L as $CaCO_3$)	24	3	20	29	17
Calcium hardness (mg/L as $CaCO_3$)	14	2	10	17	17
TOC (mg/L)	4.3	0.9	3.4	6.9	16
UV_{254} (1/cm)	0.083	0.024	0.028	0.130	15
TSUVA (L/mg-m)	2.0	0.6	0.8	3.3	15
Bromide (µg/L)	26	3	21	32	12

Table 2 Summary of source water quality at the N.L. Mitchell Water Treatment Plant between July 1997 and December 1998

Water quality parameter	Mean	Standard deviation	Minimum	Maximum	Count
Temperature (°C)	20	7	9	29	17
pH	7.7	0.2	7.2	8.0	17
Turbidity (ntu)	0.10	0.04	0.02	0.19	17
TOC (mg/L)	1.8	0.1	1.6	2.0	16
UV_{254} (1/cm)	0.026	0.002	0.023	0.031	15
TSUVA (L/mg-m)	1.4	0.2	1.2	1.7	15
DS-THM4 (µg/L)	50	23	20	107	20
DS-HAA5 (µg/L)	25	8	14	42	20
DS-HAA6 (µg/L)	27	9	14	45	20

DS: distribution system; average of all distribution system sampling points

Table 3 Summary of finished water quality at the N.L. Mitchell Water Treatment Plant between July 1997 and December 1998

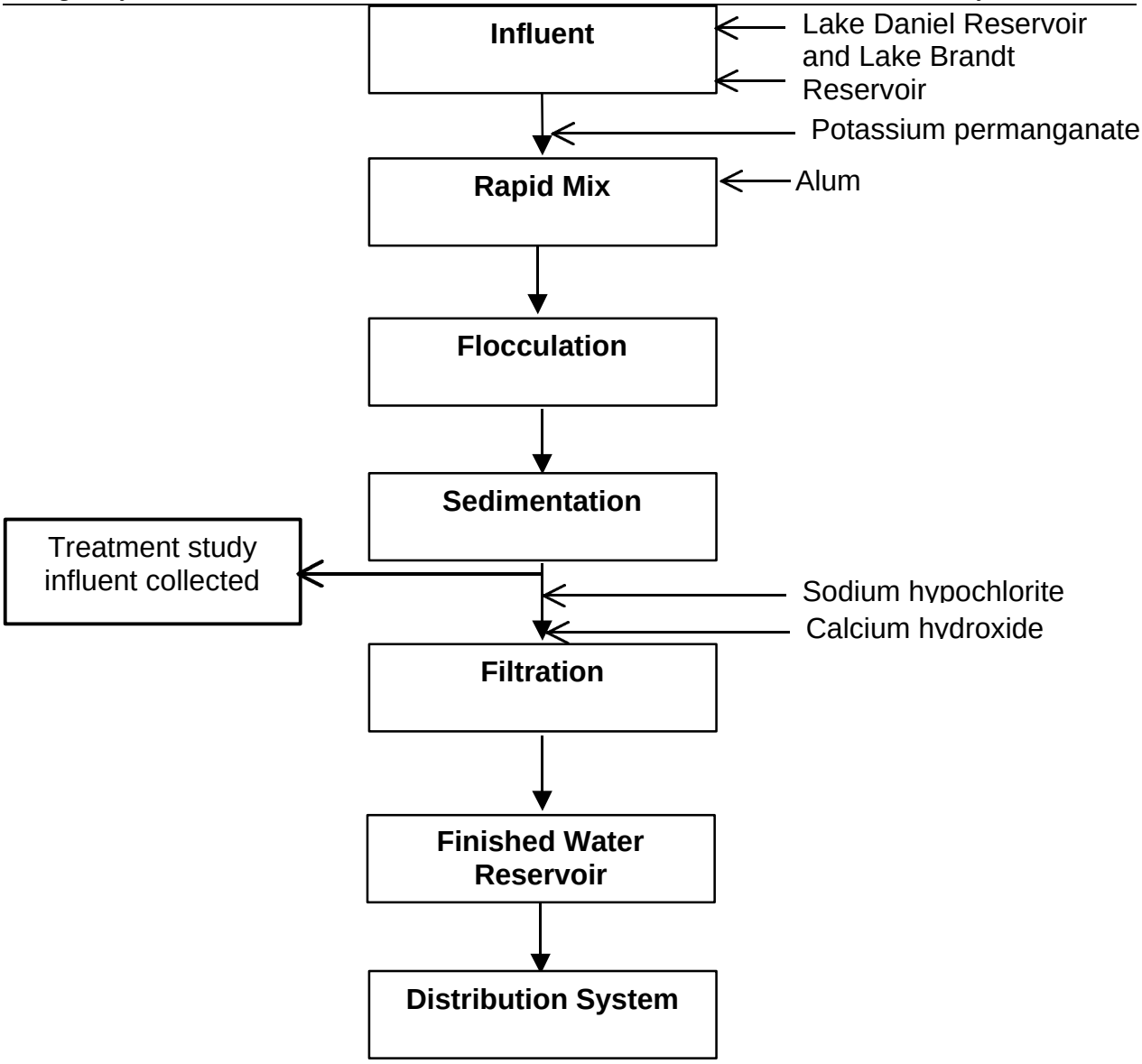


Figure 1 Treatment plant schematic

6 *Materials and Methods*

6 Materials and Methods

6.1 Treatment Study Influent Sampling Procedures

Four samples were taken throughout the year to capture seasonal variability. The sample dates are summarized in Table 4. The four samples represent the winter, spring, summer, and fall seasons. During all sessions, water was sampled after sedimentation and before disinfectant addition.

The water samples were taken in plastic 55-gallon drums, which were extensively cleaned at S&H's laboratory facility prior to use. The cleaning process included three 24-hour soaks with hot water, a basic solution, and an acidic solution. Prior to use, the drums were filled with water and TOC samples taken to ensure that no detectable leaching of organic compounds from the inside surface of the drums was occurring (measured as TOC).

During the day prior to each sampling event, the plant settled water (treatment study influent sampling point) was sampled and analyzed at Summers & Hooper, Inc. for TOC. The data was compared to historic data to verify the representativeness of plant operation during treatment study influent sampling. Table 5 summarizes the data obtained during each session. Once the representativeness of the water sample was verified by comparison to historic data, sampling into the 55-gallon drums proceeded. Plant operation and treatment parameters (e.g., chemical doses) were confirmed as within acceptable normal variation prior to drum sampling.

For all sessions, the water sampled for the treatment study was shipped the day of sampling and arrived at S&H after two days. The sample was shipped at ambient temperature. Upon arrival, the drums were stored at 4°C. To check for significant biodegradation or other changes during shipment, an aliquot of the treatment study influent water was sampled for TOC approximately half way through each sampling event. The sample was immediately preserved. Upon arrival at S&H's laboratory facilities, a second aliquot was obtained for TOC analysis. Both samples were analyzed, and the results are summarized in Table 6. During two sessions (January and April), a decrease in TOC concentration of 0.3 mg/L was detected. During the remaining two sessions (June and October), no change in TOC concentration after shipment was detected.

6.2 Pretreatment Processes to the Advanced Treatment Processes

The full-scale and bench-scale pretreatment processes in place prior to bench-scale GAC during all sessions are described in Figure 2. Bench-scale filtration through a 1.0-µm glass fiber cartridge filter, which simulates full-scale sand filtration, was performed as a required pretreatment step prior to RSSCT testing. As shown in Table 6, the measured decrease in TOC concentration before and after bench-scale filtration ranged from 0 to 27 percent. During the operation of the RSSCT, the pH was maintained within 0.1 pH units of the target GAC influent pH by the addition of dilute solutions of sulfuric acid and sodium hydroxide.

Table 7 summarizes the design data for each pretreatment process prior to GAC adsorption. Bench-scale cartridge filtration was employed as bench-scale pretreatment during all sessions.

6.3 Advanced Treatment Process Information

6.3.1 Schematics and Descriptions of the Process Equipment Used

Figures 3 and 4 show a schematic of the RSSCT systems. All components were of stainless steel, glass, or Teflon construction. The batch influent water was held in a stainless steel container. The influent water was pumped through each column using a metering diaphragm pump. The wetted parts of the pump were Teflon and glass. The pumps were rated for 1 percent speed control and 75 psi continuous duty. A stainless steel gas sampling cylinder was used as a pulse dampener. Pressure gauges with stainless steel connections were used to monitor the system pressure. The effluent flow rate was monitored constantly. The calibration of the effluent flow rate control system was checked by a manual measurement at least twice daily and adjusted as necessary to maintain it within 3 percent of the design flow rate.

The system configuration for the 10 minute EBCT contactors is shown in Figure 3. For these RSSCTs, the entire GAC bed was packed in a single column. The 20 minute EBCT contactors were packed into two columns in series, as shown in Figure 4. This allowed for backwashing by mixing the top portion of the GAC bed, if made necessary by high system pressures, without disturbing the remainder of the bed. Typically, 90 percent of the GAC bed was packed in the second column. Both columns were of equal inner diameters.

The GAC was packed in chromatography columns with Teflon fittings. The GAC support consisted of appropriately sized stainless steel screens, glass wool, and Teflon beads. The support system differed depending on the column inner diameter. Standard 8.0 mm inner diameter columns required a stainless steel support system as shown in Figure 5 (a). When 9.0 mm inner diameter columns were used, the support system shown in Figure 5 (b) was used so that the GAC was contained within the effective length of the column.

6.3.2 Design data for the Advanced Treatment Process

The design data for the RSSCTs conducted during each session are summarized in Table 8. During each session, two RSSCTs were operated to simulate full-scale equivalent EBCTs of 10 and 20 minutes. Other than the EBCT, the design for the two RSSCTs operated during each session was identical. The scaling factor used for all sessions, based on the ratio of full-scale to bench-scale GAC particle size, was 12.6. Therefore, 12.6 days of full-scale operation were simulated with each day of RSSCT operation. Columns with inner diameters of 8.0 and 9.0 mm were used. Minimum Reynolds numbers used ranged from 0.36 to 0.50.

6.3.3 Procedures Specific to the Treatment Study

6.3.3.1 GAC Preparation Procedures

A representative batch of Filtrasorb 400 (F-400), a bituminous-coal based GAC, was obtained from the manufacturer, Calgon Carbon Corporation. The GAC is a 12x40 mesh size (average

particle diameter, d_p = 1.06 mm). Using a riffle splitter, a small (30-50 g) representative sample of the GAC was obtained. Using a jar mill, the GAC was ground to a 140x230 mesh size, which yielded GAC with average particle diameter, d_p, of 0.085 mm. Care was taken to frequently remove and sieve the GAC in the jar mill. The GAC was ground until the entire sample passed through the upper mesh size sieve. Usually, a recovery of 25 to 30 percent was obtained, as defined by the amount of GAC retained between the two mesh size sieves and divided by the total amount of GAC prior to grinding.

The ground GAC was transferred to a beaker, and covered with reagent grade (adsorbed-deionized) water. The GAC was washed by repeated additions and decantations of reagent grade water. The reagent grade water was added at a high rate and turbulence, to stir up the GAC and release fines. The supernatant water containing GAC fines was decanted after the GAC was allowed to settle. Towards the end of the cleaning procedure, the sample was sonicated twice for 5 to 10 seconds. The sonication step helped loosen fines that were subsequently removed by the addition and decantation of reagent grade water.

The GAC was dried in an oven at 80 to 90°C for 6 to 12 hours. The temperature was then raised to between 100 and 110°C and the sample was dried until it reached a constant weight. The sample was removed and cooled inside a dessicator. Once cooled, if not immediately used, it was stored in a glass vial sealed with a lid with TFE-lined septum until ready for use.

The dry bed density was measured using a sample of dried and cooled GAC. Stored GAC was dried in an oven as described above prior to the dry bed density measurement. To measure the dry bed density, a sample of the GAC was placed inside a 10-mL glass graduated cylinder to a level of 5 to 9 mL. The cylinder was tapped to pack the GAC. A volume was measured and recorded. This GAC was then weighed on a balance. The volume reading of the graduated cylinder was checked and calibrated if necessary by adding a known volume of water to it using a 10-mL class A graduated pipette. The GAC dry bed density was calculated by dividing the weight by the calibrated volume.

The calculated mass of GAC of each RSSCT was weighed, placed inside a clean beaker, and covered with reagent grade water. The wetted GAC was usually allowed to sit for 12 to 24 hours, followed by placement in a vacuum for at least 1 hour to displace the air within the pores.

6.3.3.2 RSSCT Column Setup

The GAC support for 9.0 mm inner diameter columns consisted of a stainless steel screen (60 or 100 mesh size), Teflon beads, glass wool, a 325 mesh size stainless steel screen, and a 200 mesh size stainless steel screen. The column support is detailed in Figure 5. The support for 8.0 mm inner diameter columns consisted of a 325 mesh size stainless steel screen and a 200 mesh size stainless steel screen placed on top of the Teflon fitting. For all column inner diameter sizes, a small amount of glass wool was placed inside the Teflon fitting, supported by a 60 mesh size stainless steel screen.

The columns were packed by adding the GAC as a slurry and packing the column by repeatedly tapping the sides. The 20 minute full-scale equivalent EBCT RSSCTs were packed into two

columns of the same inner diameter placed in series. Only reagent grade water was used during the packing process.

6.3.3.3 Batch Influent Preparation

Prior to RSSCT testing, all water samples were filtered through a 1.0-µm nominal pore size glass fiber cartridge filter. The cartridge filter was pre-rinsed with deionized water. Dilute solutions of sulfuric acid and sodium hydroxide were used to maintain the influent pH within 0.1 pH units of the target pH during operation of the RSSCTs.

6.3.3.4 RSSCT Monitoring

The effluent flow rates were monitored constantly to ensure that the flow rates were maintained within 5 percent of the design flow rate. The calibration of the effluent flow rate control system was checked at least twice daily and adjusted when a flow rate differed by more than 3 percent from the design flow rate. The system pressure was monitored daily. The effluent TOC concentration was monitored frequently so that samples could be taken at 5 to 8 percent increments of the average influent TOC concentration.

6.3.3.5 Headloss Buildup

Problematic headloss buildup occurred primarily during the January RSSCT run. Typically, when the pressure required to maintain a constant flow rate through the RSSCT exceeds 50 psi, a column backwashing procedure is performed to mitigate the headloss problem. Three backwashing procedures were utilized, with varying levels of intrusion into the column bed: Type 1, Type 2, and Type 3.

Type 1

This procedure minimizes the disturbance of the GAC bed. The column is taken off line, and the top opened so that the GAC inside is accessible. A clean small rod (18 gauge galvanized steel wire) is inserted into the column. The top layer (0.2 - 1.0 cm) of GAC is carefully mixed to break apart the particles that are bound together. Once the top layer is sufficiently loosened, the column is placed on line, and the head pressure necessary to maintain the design flow rate is usually 20 to 40 percent of the pressure before mixing the top layer.

Type 2

Once the top layer is loosened as described in Type 1, the rod is pushed downward to a level 3 to 5 cm below the top of the GAC bed. By moving the rod in a circular motion, the bed is stirred.

Type 3

When headloss increases very rapidly after Type 2 mitigation, the entire column is backwashed. This procedure was performed only when absolutely necessary. The GAC in the column is removed into a clean beaker and stirred to break apart any clumps. The column is then repacked

as a slurry using GAC effluent water (sampled just prior to the start of backwashing) to help rinse all the GAC from the beaker into the column.

All backwashing episodes are summarized in Section 7.2.

6.4 Experimental Design

The treatment study was designed to evaluate the impact of seasonal variability on the performance of bituminous coal-based GAC at two EBCTs, 10 and 20 minutes. Four sessions were conducted to perform this evaluation. The experimental design is summarized in Table 9.

6.5 ICR Treatment Study Protocol

This treatment study was designed and conducted as required by section 141.141(3) of the Information Collection Rule (ICR), published in the May 14, 1996 Federal Register. The procedures contained in the *GAC Precursor Removal Studies* section of the *ICR Manual for Bench- and Pilot-Scale Treatment Studies* were followed. During RSSCT operation, a minimum of 12 effluent samples were taken at target 5 to 8 percent increments of the average influent TOC concentration. Three samples were taken in duplicate and the resulting experimental variability is displayed on all plots as vertical error bars representing the relative difference between the duplicate samples. All required analyses were conducted, including pH, temperature, TOC, UV_{254}, and SDS chlorination for THMs, HAAs, and TOX.

During each session, both the 10 and 20 minute EBCT RSSCTs were operated in parallel, with a single batch influent container. Therefore, only two influent A (alkalinity, calcium hardness, total hardness, ammonia, and bromide) and three influent B (pH, temperature, turbidity, TOC, $UV_{254,}$ SDS chlorination) samples were taken during the course of each study, and the data from these applied to both the 10 and 20 minute EBCT RSSCTs.

The ICR requires that the RSSCTs be operated until the first of three conditions are met:

1. the effluent TOC concentration reaches at least 70 percent of the average influent TOC concentration

2. the effluent TOC concentration reaches a plateau at greater than 50 percent of the influent TOC concentration (a plateau is defined as an increase in TOC concentration of no more than 10 percent over a two-month full-scale equivalent time period)

3. the RSSCT has been operated for the equivalent full-scale of one year

Most of the 10 minute EBCT column runs were terminated based on meeting the first condition: the effluent TOC concentration reached or exceeded 70 percent of the average influent TOC concentration. Typically, the twelfth and last RSSCT effluent sample was taken at this point. A thirteenth sample (analyzed for TOC, pH, and temperature only) was taken two full-scale equivalent weeks after the twelfth effluent sample to confirm that 70 percent TOC breakthrough

was reached. Table 10 summarizes the run termination criteria used, percent breakthrough reached at the twelfth sample, and the corresponding full-scale equivalent run time.

All three criteria were used at different times to terminate the 20 minute EBCT column runs. A full-scale equivalent year of operation was exceeded during the January, April, and June runs. Besides exceeding one year of full-scale operation, the April run was terminated based the plateau criterion.

A tabular summary of the all data analyzed during the treatment study is given in the Appendix. As required by EPA, the data was input into the *ICR Treatment Studies Data Collection Spreadsheets*. These files are included in electronic form (CD-ROM) as an attachment to this report.

6.6 Simulated Distribution System (SDS) Chlorination Conditions

The target simulated distribution system (SDS) conditions are summarized in Table 11. During all sessions, a 24-hour holding time was targeted. The samples were buffered at pH 7.5 to 7.7 using a borate/phosphate buffer combination, based on the pH maintained in the distribution system during the season sampled. The target free chlorine residual after 24 hours was 1.0 mg/L as Cl_2. The target incubation temperature varied seasonally, from 8.0 to 22°C, based on average distribution system temperatures. The same target SDS conditions were applied to both GAC influent and effluent samples chlorinated. For GAC influent water, the average and standard deviation obtained for each parameter are summarized in Table 12 for all sessions. The same data are summarized in Tables 13 and 14 for the GAC effluent samples.

6.7 Analytical Methods

A list of all analytical methods and the minimum reporting level (MRL) used during the study are shown in Table 15. A summary listing the laboratories involved for analytical support and the period over which analyses were conducted by each laboratory is shown in Table 16. Contact information for the laboratories involved is summarized in Table 17.

Session	Sampling Date
1	January 5, 1999
2	April 14, 1998
3	June 16, 1998
4	October 6, 1998

Table 4 Sampling dates for quarterly GAC bench-scale treatment study sessions

Sample date	TOC concentration (mg/L)	
	Raw	Settled
January	4.1	2.1
April	2.8	1.7
June	3.4	2.0
October	3.2*	2.0

*Value based on sample taken on day of treatment study sampling

Table 5 Summary of sample representativeness data

Session	Settled water TOC concentration (mg/L)		Percent change (%)	Cartridge filtered water TOC concentration (mg/L)	Plant filtered water TOC concentration (mg/L)
	On day of sampling	Upon arrival at S&H			
January	3.3	3.0	-9.1	2.2	2.4
April	1.9	1.6	-16	1.4	1.6
June	2.0	2.0	0.0	1.8	1.9
October	2.0	2.0	0.0	2.0	2.2

Table 6 Summary of TOC sampling before and after water shipment

Unit Process	Process Description
Rapid Mix (Full-Scale)	Type of Mixer: Mechanical Baffling Type: Unbaffled (Mixed tank) Liquid Volume (gal): 95,744 Short Circuiting Factor: NA_V Mean Velocity Gradient (sec^{-1}): 130 Coagulant Addition: Aluminum sulfate (alum) Coagulant Dose (mg/L): 34
Flocculation (Full-Scale)	Type of Mixer: Mechanical Liquid Volume (gal): 463,760 Short Circuiting Factor: NA_V Baffling Type: Superior (Serpentine) Stage Sequence Number: 1 - 5 Stage Mean Velocity Gradient (sec^{-1}): 60 Stage Liquid Volume (gal): 92,796
Sedimentation (Full-Scale)	Surface Area (ft^2): 20,382 Liquid Volume (gal): 2,446,476 Baffling Type: Unbaffled
Cartridge Filtration (Bench-Scale)	Surface Area (ft^2): 5.0 Nominal Pore Size (µm): 1.0 Filter Material: Glass fiber Filter Life (gallons of processed water): 150- 200

Table 7 Summary of design data for each pretreatment process prior to GAC

Design parameter	Design value during session			
	1 January	2 April	3 June	4 October
GAC manufacturer	Calgon Carbon Co.	Calgon Carbon Co.	Calgon Carbon Co.	Calgon Carbon Co.
GAC brand name	F-400	F-400	F-400	F-400
GAC type	Bituminous	Bituminous	Bituminous	Bituminous
GAC mesh size	12x40	12x40	12x40	12x40
Average particle diameter, d_{LC} (mm)	1.063	1.063	1.063	1.063
General design parameters				
Minimum Reynold's number, $Re_{SC, min}$ (-)	0.36	0.46	0.50	0.50
Full-scale operating temperature (°C)	8	17	22	20
Kinematic viscosity, ν_{LC} (m^2/s)	1.39E-06	1.08E-06	9.57E-07	1.00E-06
Bed porosity, ε_{LC} (-)	0.45	0.45	0.45	0.45
Measured dry bed density, ρ_{SC} (g/cm^3)	0.468	0.510	0.483	0.439
RSSCT design parameters				
RSSCT mesh size	140x230	140x230	140x230	140x230
Particle diameter, d_{SC} (mm)	0.085	0.085	0.085	0.085
Scaling factor, SF	12.57	12.57	12.57	12.57
Hydraulic loading rate, v_{SC} (m/hr)	9.62	9.63	9.17	9.62
Column diameter, D_{SC} (mm)	8.0	8.0	8.0	9.0
Flow rate, Q_{SC} (mL/min)	8.1	8.1	7.7	10.2
Estimated run length				
RSSCT Influent TOC concentration (mg/L)	2.1	1.5	1.9	1.8
Bed volumes to 50% TOC breakthrough, BV_{50}	8,271	12,810	9,421	10,107
Estimated total run time, BV_T	28,950	44,834	32,972	35,373
RSSCT 1				
Full-scale empty-bed contact time, $EBCT_{LC}$ (min)	10	10	10	7.2
Estimated full-scale run time, t_{LC}^T (days)	201	311	229	176
Estimated RSSCT run time, t_{SC}^T (days)	16.0	24.8	18.2	14.0
Volume water required, V_{SC} (L)	186	288	202	206
Mass GAC required, m_{SC} (g)	3.00	3.27	2.95	2.55
RSSCT empty-bed contact time, $EBCT_{SC}$ (min)	0.80	0.80	0.80	0.57
Bed length, l_{SC} (cm)	12.8	12.8	12.2	9.2
RSSCT 2				
Full-scale empty-bed contact time, $EBCT_{LC}$ (min)	20	20	20	14.4
Estimated full-scale run time, t_{LC}^T (days)	402	623	458	353
Estimated RSSCT run time, t_{SC}^T (days)	32.0	49.5	36.4	28.1
Volume water required, V_{SC} (L)	371	575	403	412
Mass GAC required, m_{SC} (g)	6.00	6.54	5.90	5.11
RSSCT empty-bed contact time, $EBCT_{SC}$ (min)	1.59	1.59	1.59	1.14
Bed length, l_{SC} (cm)	25.5	25.5	24.3	18.3

Table 8 Summary of RSSCT design parameters

Season	Pretreatment	GAC type	EBCT (min)
Winter	Conventional (Alum coagulation)	Bituminous	10, 20
Spring	Conventional (Alum coagulation)	Bituminous	10, 20
Summer	Conventional (Alum coagulation)	Bituminous	10, 20
Fall	Conventional (Alum coagulation)	Bituminous	10, 20 (7.2, 14.4)*

*actual EBCT

Table 9 Experimental design summary

Session	10 minute EBCT			20 minute EBCT		
	Run termination criteria*	Run time (days)	Percent TOC breakthrough	Run termination criteria*	Run time (days)	Percent TOC breakthrough
January	2	265	72	3	374	58
April	1	159	68†	2	366	69
June	1	192	75	3	366	69
October	1	146	75	1	262	73

* 1: the effluent TOC concentration reaches at least 70 percent of the average influent TOC concentration
2: the effluent TOC concentration reaches a plateau at greater than 50 percent of the influent TOC concentration (a plateau is defined as an increase in TOC concentration of no more than 10 percent over a two-month full-scale equivalent time period)
3: the RSSCT has been operated for the full-scale equivalent of one year

†Based on the running average influent TOC concentration at the time of sampling, 70 percent TOC breakthrough was exceeded. The calculated 68 percent TOC breakthrough is based on additional influent TOC sampling while the 20 minute EBCT contactor run continued.

Table 10 Summary of RSSCT run termination criteria, run time, and percent TOC breakthrough reached

Parameter	Session 1 January		Session 2 April		Session 3 June		Session 4 October*	
	Value	Tolerance	Value	Tolerance	Value	Tolerance	Value	Tolerance
Incubation time (hours)	24.0	1.0	24.0	1.0	24.0	1.0	24.0	1.0
Incubation temperature (°C)	8.0	2.0	17.0	2.0	22.0	2.0	20.0	2.0
pH	7.70	0.20	7.70	0.20	7.50	0.20	7.70	0.20
Free chlorine residual (mg/L)	1.00	0.30	1.00	0.30	1.00	0.30	1.00	0.30

Table 11 Simulated distribution system (SDS) chlorination target conditions

Parameter	Session 1 January		Session 2 April		Session 3 June		Session 4 October*	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Incubation time (hours)	24.0	0.0	24.2	0.3	24.3	0.2	23.9	0.1
Incubation temperature (°C)	8.7	0.1	17.8	0.2	21.3	0.7	19.9	0.1
pH	7.71	0.02	7.68	0.00	7.49	0.03	7.67	0.04
Free chlorine residual (mg/L)	1.07	0.18	0.97	0.20	0.98	0.02	1.02	0.01

*pH is average of analysis at beginning and end of incubation period for each sample.

Table 12 Summary of experimental SDS chlorination conditions for GAC influent water

Parameter	Session 1 January		Session 2 April		Session 3 June		Session 4 October*	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Incubation time (hours)	24.0	0.1	22.8	4.6	24.2	0.2	24.0	0.2
Incubation temperature (°C)	8.7	0.1	17.4	0.4	21.8	0.0	20.0	0.1
pH	7.65	0.04	7.69	0.02	7.52	0.03	7.63	0.01
Free chlorine residual (mg/L)	0.90	0.23	1.08	0.13	0.94	0.05	1.01	0.05

*pH is average of analysis at beginning and end of incubation period for each sample.

Table 13 Summary of experimental SDS chlorination conditions for 10 minute EBCT contactor effluent

Parameter	Session 1 January		Session 2 April		Session 3 June		Session 4 October*	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Incubation time (hours)	24.1	0.1	22.9	4.7	24.2	0.2	24.0	0.2
Incubation temperature (°C)	8.8	0.1	17.6	0.5	21.4	0.5	19.9	0.1
pH	7.69	0.04	7.67	0.02	7.52	0.04	7.64	0.01
Free chlorine residual (mg/L)	0.98	0.06	1.05	0.06	0.98	0.06	1.08	0.21

*pH is average of analysis at beginning and end of incubation period for each sample.

Table 14 Summary of experimental SDS chlorination conditions for 20 minute EBCT contactor effluent

Analyte	Session	Method	Minimum reporting level (MRL)
Alkalinity	All	SM 2320 B	5 mg/L as $CaCO_3$
Ammonia-Nitrogen	All	EPA 350.1	0.05 mg/L as NH_3-N
Bromide	All	EPA 300.0 A	0.02 mg/L
Calcium hardness	All	EPA 200.7	5 mg/L as $CaCO_3$
Chlorine dose (solution standardization)	All	SM 4500-Cl B	NA
Chlorine residual	All	SM 4500-Cl F	0.2 mg/L as Cl_2
HAA (DCAA, TCAA, MBAA, DBAA, BCAA, BDCAA)	All	EPA 552.2	1.0 µg/L (each analyte)
HAA (MCAA, CDBAA)	All	EPA 552.2	2.0 µg/L (each analyte)
HAA (TBAA)	All	EPA 552.2	4.0 µg/L
pH	All	4500-H^+ B	NA
Temperature	All	SM 2550 B	NA
Total hardness	All	SM 2340 B	5 mg/L as $CaCO_3$
Total organic carbon (TOC)	All	SM 5310 C	0.50 mg/L
Total organic halide (TOX)	All	SM 5320 B	25 µg/L as Cl^-
THM ($CHCl_3$, BDCM, DBCM, $CHBr_3$)	All	EPA 551.1	1.0 µg/L (each analyte)
Turbidity	All	SM 2130 B	0.05 ntu
UV absorbance at 254 nm (UV_{254})	All	SM 5910 B	0.009 cm^{-1}

SM: *Standard Methods*
NA: Not applicable

Table 15 Summary of analytical methods and MRLs

Analyses performed	Sessions of service	Laboratory
Alkalinity, chlorine dose, chlorine residual, HAA9, pH, temperature, THM4, TOC, TOX, turbidity, UV_{254}	All	Summers & Hooper, Inc.
Ammonia, bromide, calcium hardness, total hardness	All	Montgomery Watson Laboratories

Table 16 Summary of laboratories conducting analyses

	Summers & Hooper, Inc.	Montgomery Watson Laboratories
ICR lab ID number	ICROH033	ICRCA013
Contact name:	Stuart Hooper	Andrew Eaton
Contact phone number	(513) 679-2200	(626) 568-6400
Contact fax number	(513) 679-2201	(626) 568-6324

Table 17 Laboratory contact information

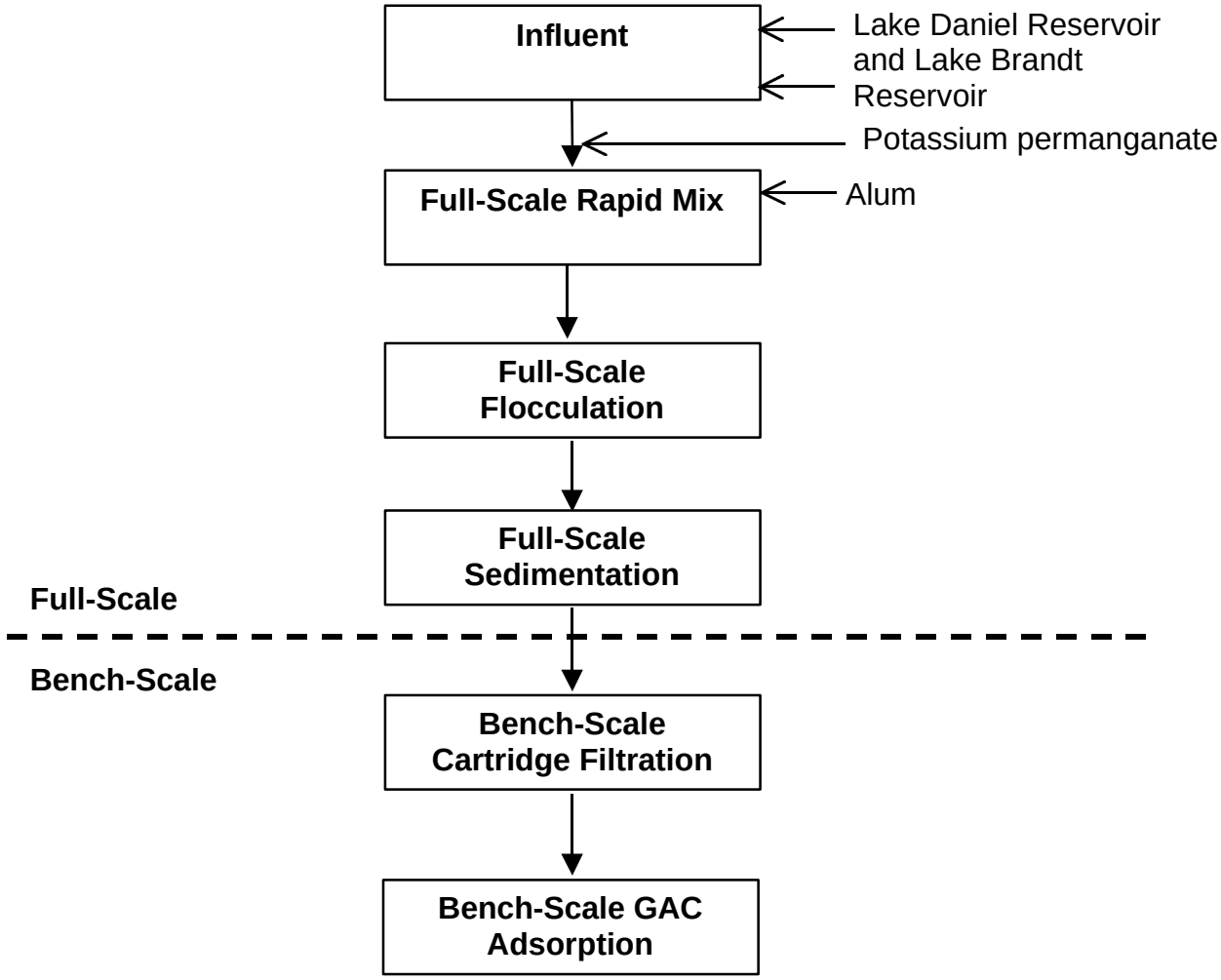


Figure 2 Schematic of pretreatment processes prior to bench-scale GAC

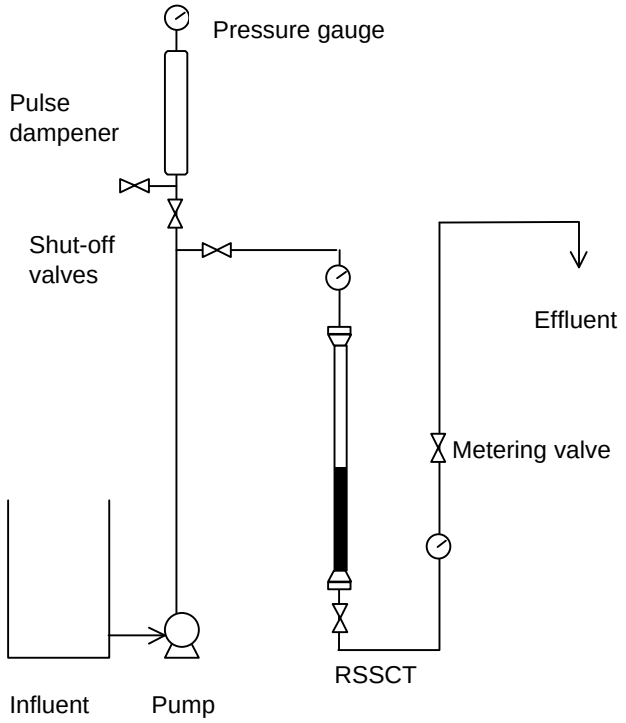


Figure 3 RSSCT system schematic for 10 minute EBCT full-scale equivalent contactors

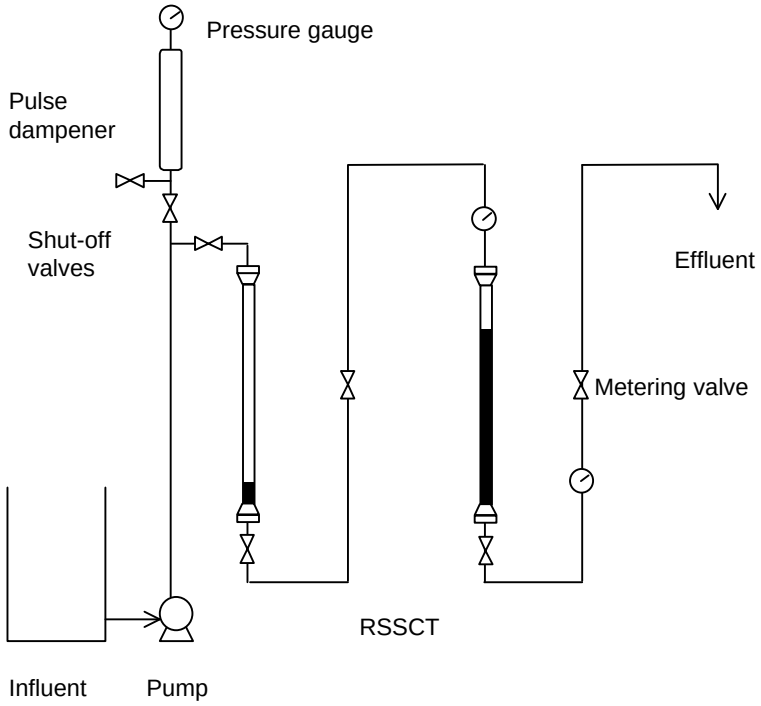
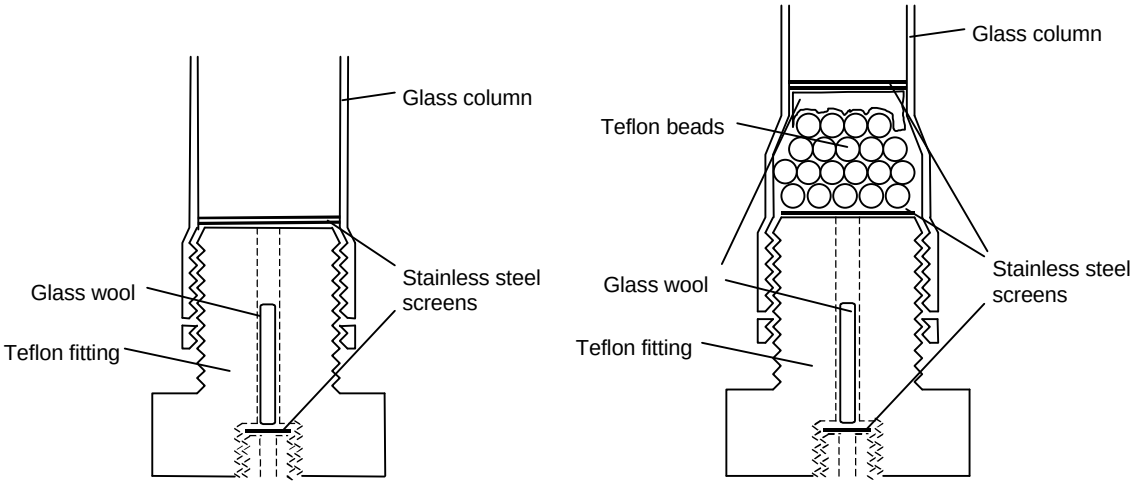


Figure 4 RSSCT system schematic for 20 minute EBCT full-scale equivalent contactor



(a) Standard 8.0 mm inner diameter column (b) 9.0 mm inner diameter column

Figure 5 RSSCT column GAC support system

7 *Results and Discussion Overview*

7 Results and Discussion Overview

7.1 Data Analysis

A significant amount of data was collected during the treatment study. The following chapters summarize various methods of analyzing the data. These include a discussion of the impact of seasonal variability in water quality and contactor EBCT on DBP precursor control. Although data for single contactor operation was generated by this treatment study, in practice, multiple GAC contactors in parallel are used, and GAC run times are lengthened significantly by operating the contactors in a staggered mode. GAC run times are estimated based on a model that simulates the operation of multiple GAC contactors in parallel. Breakthrough curve extrapolations were performed: the algorithm used and the results obtained are presented. The extent to which TOC and UV_{254} breakthrough served as indicators for DBP precursor breakthrough is analyzed. An evaluation of GAC performance based on TOC breakthrough and compared to other waters is presented. Finally, an EPA cost model is used to estimate the costs for GAC treatment based meeting the placeholders for Stage 2 DBP MCLs.

7.2 Problems Encountered

During the April, June, and October sessions, excessive headloss during the RSSCT runs was a minor problem necessitating minimal backwashing of the columns. During the January run, however, excessive headloss buildup became problematic. The 10 minute EBCT contactor was backwashed 29 times to varying degrees of GAC bed disturbance, ranging from backwashing the very top layer of the GAC bed to removing all the GAC into a beaker and repacking the column. The 20 minute EBCT contactor was backwashed 34 times during the run. Three types of backwashing were performed, to various degrees of GAC bed disturbance. These are summarized in Section 6.3.3.5. To minimize the effects of complete backwashing (Type 3), the top half of each contactor was not mixed with the bottom half of each contactor. This was accomplished by maintaining the top and bottom halves of the GAC bed in separate columns placed in series. Type 3 backwashing usually was performed on both columns, although sometimes the headloss was problematic only in one and therefore only the half GAC bed affected was backwashed. All backwashing events performed are summarized in Table 18. Once the first backwashing was required for the 10 minute EBCT contactor (after 121 full-scale equivalent days of operation), the frequency of contactor backwashing averaged 5.3 full-scale equivalent days. For the 20 minute EBCT contactor, the frequency of contactor backwashing averaged 7.8 full-scale equivalent days.

During the October session, due to a calculation error, the actual EBCTs evaluated were 7.2 and 14.4 minutes instead of the targeted 10 and 20 minutes. Throughout this report, discussions related to the 10 minute EBCT contactors include the data obtained during the October session 7.2 minute EBCT run. Similarly, the October session 14.4 minute EBCT run results are discussed along with the 20 minute EBCT contactors operated during the remaining sessions.

7.3 Pretreated Influent Water Quality Data

The average pretreated influent to GAC water quality for each quarterly sample is summarized in Table 19. The water was pretreated by full-scale conventional treatment with alum, and bench-scale cartridge filtration. TOC and UV_{254} showed some variability over the four sampling events. Treated TOC concentration ranged from 1.5 to 2.1 mg/L, and the mean TOC concentration for all four sampling events was 1.9 ± 0.2 mg/L (relative standard deviation [RSD] = 13%). The mean UV_{254} for the four treated waters was 0.032 ± 0.004 cm^{-1} (RSD = 12%). The specific UV absorbance (TSUVA), defined as UV_{254}/TOC, averaged 1.7 L/mg-m (RSD = 28%). The influent pH ranged from 7.6 to 7.8. Alkalinity averaged 23 mg/L as $CaCO_3$ (RSD = 11%); calcium hardness averaged 19 mg/L as $CaCO_3$ (RSD = 9%); total hardness averaged 30 mg/L as $CaCO_3$ (RSD = 7%). Ammonia levels ranged from BMRL to 0.075 mg/L. Bromide concentrations were very low, ranging from BMRL to 28 µg/L.

Seasonal variability in treated water SDS-DBP formation was highest for THM4 formation. SDS-THM4 concentrations averaged 34 µg/L (RSD = 29%); SDS-HAA5, SDS-HAA6, and SDS-HAA9 levels averaged 19, 21, and 24 µg/L, respectively. Seasonal variability was slightly lower as evidenced by RSDs of between 21 and 22 percent. The higher variability in SDS-THM4 formation as compared to SDS-HAA formation may have been due to the sensitivity of THM formation to temperature and the wide range of SDS incubation temperatures used (8 to 22°C). SDS-TOX levels averaged 143 µg/L as Cl^-, with a RSD of 18 percent. SDS chlorine demand (CLD) averaged 1.7 mg/L (RSD = 28%).

Session	Full-scale equivalent run time (d)			
	10 minute EBCT		20 minute EBCT	
January	121[1]	194[2]	105[1]	243[3]
	123[1]	197[2]	118[1]	257[2]
	124[1]	197[3]	120[1]	257[3]
	128[2]	212[2]	123[2]	268[2]
	134[2]	219[2]	130[2]	278[3]
	135[2]	225[2]	136[2]	303[2]
	137[2]	230[2]	148[2]	314[2]
	145[2]	237[2]	157[2]	318[2]
	152[2]	244[2]	165[2]	326[2]
	159[2]	246[3]	171[2]	328
	163[2]	256[3]	178[2]	336[2]
	168[2]	268[3]	182[2]	336[2]
	172[2]		193[2]	341[3]
	172[2]		204[2]	349[2]
	175[3]		207[2]	352[2]
	175[2]		209[3]	360[2]
	188[2]		216[3]	362[3]
April	NB		NB	
June	162[1]		217[1]	
			338[1]	
October	NB		102[1]	
			239[1]	

NB: not backwashed during entire run
[1]Type 1 column backwash
[2]Type 2 column backwash
[3]Type 3 column backwash

Table 18 Summary of RSSCT backwashing episodes

Water Quality Parameter	Session 1 January		Session 2 April		Session 3 June		Session 4 October*	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Temperature (°C)	19.3	1.1	17.2	2.3	21.1	2.9	17.5	1.5
pH	7.84	0.06	7.71	0.03	7.62	0.04	7.65	0.06
Turbidity (ntu)	0.13	0.03	0.09	0.03	0.13	0.04	0.09	0.03
Alkalinity (mg/L as $CaCO_3$)	23	4	20	0	26	4	22	2
Calcium hardness (mg/L as $CaCO_3$)	17	1	18	1	19	1	21	0
Total hardness (mg/L as $CaCO_3$)	26	1	31	6	31	1	32	0
Ammonia (mg/L)	0.030	NA	BMRL	NA	0.030	0.042	0.075	0.021
Bromide (mg/L)	0.021	NA	BMRL	NA	0.022	0.001	0.028	0.000
TOC (mg/L)	2.08	0.15	1.54	0.09	1.88	0.02	2.01	0.04
UV_{254} (1/cm)	0.030	0.001	0.030	0.000	0.038	0.000	0.032	0.000
Specific UV absorbance, TSUVA (L/mg-m)	1.4	--	1.9	--	2.0	--	1.6	--
SDS-THM4 (µg/L)	22	2	32	1	43	3	42	1
SDS-HAA5 (µg/L)	16	6	16	1	22	2	23	2
SDS-HAA6 (µg/L)	18	6	17	1	24	2	26	2
SDS-HAA9 (µg/L)	20	7	19	1	27	3	29	3
SDS-TOX (µg Cl^-/L)	121	2	123	1	174	4	156	3
SDS-chlorine demand (mg/L)	1.5	0.2	1.2	0.1	1.5	0.0	2.3	0.0

BMRL: below minimum reporting level
NA: not applicable

Table 19 Summary of GAC influent water quality

8 *Impact of Seasonal Variability*

8 Impact of Seasonal Variability

During each quarterly session, both 10 minute and 20 minute full-scale equivalent EBCTs were evaluated using RSSCTs. Table 4 lists the sampling date for each session.

Figure 6 shows the RSSCT effluent TOC breakthrough profiles for the 10 minute EBCT contactors during each session. The October 7.2 minute EBCT contactor breakthrough curve is also shown in Figure 6, and in all other DBP surrogate and SDS-DBP breakthrough curves that follow. Due to the shorter EBCT, the earlier TOC breakthrough pattern shown for the October sample in Figure 6 was expected. Overall, a wide range in TOC breakthrough behavior was observed. Although the January sample influent TOC concentration was 11 percent higher than that for the June sample, the June contactor showed earlier TOC breakthrough, indicating a change in the adsorbability of TOC. In general, breakthrough performance improves with decreasing influent TOC concentration. The April session, with the lowest influent TOC concentration, slightly outperformed all contactors. Run times to an effluent TOC concentration of 1.0 mg/L ranged from 60 to 138 days. Run times to 70 percent TOC breakthrough ranged from 112 to 236 days.

The patterns observed for effluent UV_{254} breakthrough profiles are shown in Figure 7. The lowest influent UV_{254} levels were associated with the January and April runs, and effluent UV_{254} breakthrough outperformed that for the June session. The influent UV_{254} during the October run was lower than that during the June run, but breakthrough occurred earlier due to the shorter EBCT utilized.

The GAC effluent breakthrough profiles for SDS-DBPs are plotted in Figures 8 through 12. Influent SDS-THM4 levels were highest during the June and October session, followed by the April and then January sessions, due to the higher SDS incubation temperatures used. Although the influent concentration for the June and October sessions were similar, the June session effluent breakthrough of SDS-THM4 was shifted to the right, indicating better performance. This may have been in part due to the shorter EBCT (7.2 minutes) associated with the October session. The January session showed the best overall control of SDS-THM4 precursors. Figures 9 through 11 show the breakthrough curves for 10 minute EBCT contactors for SDS-HAA5, SDS-HAA6, and SDS-HAA9. The June and October runs, with similar influent SDS-HAA concentrations, yielded similar effluent breakthrough of HAA precursors towards the middle to the end of the run. As expected, breakthrough of SDS-HAA occurred earliest during the October run, however. HAA precursors were best controlled during the January run. SDS-TOX breakthrough occurred earliest during the October session, followed by the June, April, and January sessions. Influent SDS-TOX concentrations were highest during the Junes session.

The GAC effluent SDS-CLD, Figure 13, displayed a relatively high immediate breakthrough for the October and January sessions, which ranged from 0.8 to 0.9 mg/L as Cl_2. The immediate breakthrough was likely caused by inorganic chlorine demand. The influent SDS-CLD was also highest during the October session. Effluent SDS-CLD increased over time, as organic chlorine demand increased due to TOC breakthrough.

The RSSCT effluent TOC breakthrough profiles for the 20 minute EBCT contactors are shown in Figure 14. All runs except the October run exceeded one year of full-scale equivalent concentration. Run times to an effluent TOC concentration of 1.0 mg/L ranged from 157 to 332 days. Seventy percent TOC breakthrough was exceeded only during the October run, which simulated a 14.4 minute EBCT contactor. Run times were longer than those observed for the 10 minute EBCT contactor results due to the longer EBCT. The relative order of breakthrough was the same as that observed for the 10 minute EBCT contactors. Results for UV_{254} breakthrough are shown in Figure 15. The GAC effluent breakthrough profiles for SDS-DBP formation are plotted in Figures 16 through 20. In general, the breakthrough trends for THMs and HAAs described for the 10 minute EBCT contactor were also evident in the 20 minute EBCT contactor breakthrough profiles. Figure 21 shows the measured GAC effluent SDS chlorine demand.

The effluent pH and temperature for each EBCT during each session were also monitored, and the results, summarized in Tables 20 and 21, were fairly consistent with a RSD ranging from 1 to 5 percent.

Table 22 summarizes run times to various GAC effluent criteria for the 10 minute EBCT contactors. The mean, standard deviation, and RSD of the run times for the four sessions are also tabulated, along with the length of each study. For the 20 minute EBCT contactors, a summary of the same information is given in Table 23. The THM and HAA run time criteria chosen are based on Stage 1 and the placeholder for Stage 2 MCLs, with a 20 percent safety factor. The TOC, UV_{254}, and TOX breakthrough criteria were chosen to represent a range of concentrations. A relative performance criteria, 50 percent breakthrough, c/c_0, was also chosen for TOC and UV_{254}. The calculated RSD provides a measure of the degree of seasonal variability evident in GAC performance. For example, the run time to a GAC effluent TOC concentration of 1.0 mg/L for 10 minute EBCT contactors ranged from 60 to 138 days, with a RSD of 33 percent. The Stage 1 THM4 MCL was not exceeded during the January or April runs; during the June and October runs, it was exceeded after 188 and 155 days, respectively.

For a visual comparison of the impact of seasonal variability on GAC run times, bar graph plots of the data were generated. For a 10 minute EBCT, Figures 22 and 23 summarize run times to effluent TOC and UV_{254} criteria, and Figures 24 and 25 summarize run times to effluent SDS-THM4 and SDS-HAA5 criteria. In many cases, the effluent concentration did not reach the run time criterion, and no bar is shown. Bar graph GAC run time summaries are shown in Figures 26 through 29 for the 20 minute EBCT contactors.

Based on the calculated run times for all four quarters and both EBCTs, the corresponding concentration of other measured parameters (DBP precursor surrogates and SDS-DBPs) at that run time were also calculated. For each session and EBCT, these data are summarized in Tables 22 through 29. For example, Table 26 shows that when the Stage 1 MCL for THM4 (with a 20 percent safety factor) was exceeded, the TOC concentration was 1.4 mg/L, the SDS-HAA5 concentration was 15 µg/L, and the SDS-TOX concentration was 109 µg Cl^-/L.

It is important to track the breakthrough behavior of specific DBP species, because some may be of potential health concern and a MCL could be set for a specific DBP species. GAC does not remove bromide and this can result in relatively high bromide to TOC ratios in the GAC effluent. Because of the higher bromide to TOC ratios, GAC effluent SDS-DBPs may undergo shifts in

speciation to more brominated DBP species. In some cases, effluent concentration are measured higher than influent levels.

For both the 10 and 20 minute EBCT contactors and all sessions, Figures 30, 31, 32 and 33 show the breakthrough behavior of the formed THMs: chloroform ($CHCl_3$), bromodichloromethane (BDCM), dibromochloromethane (DBCM), and bromoform ($CHBr_3$), respectively. Overall, the greatest contributing species to GAC influent SDS-THM4 was SDS-$CHCl_3$, followed by SDS-DBCM and SDS-BDCM. SDS-$CHBr_3$ was not detected above the MRL in the GAC influent. GAC effluent levels of SDS-$CHCl_3$ comprised the largest fraction of effluent SDS-THM4. Effluent SDS-BDCM levels exceeded the formed influent concentrations due to the higher bromide to TOC ratio in the GAC effluent. The MRL for each analyte is indicated on each plot as a dashed line.

All nine HAA species were analyzed during the study. Plots of the effluent formed breakthrough profiles for the nine HAA species during all seasons and for both EBCTs are shown in Figures 34 through 42. The HAA species are monochloroacetic acid (MCAA), dichloroacetic acid (DCAA), trichloroacetic acid (TCAA), monobromoacetic acid (MBAA), dibromoacetic acid (DBAA), bromochloroacetic acid (BCAA), dichlorobromoacetic acid (DCBAA), chlorodibromoacetic acid (CDBAA), and tribromoacetic acid (TBAA). Most of the effluent SDS-HAA measured was due to the formation of SDS-DCAA and SDS-TCAA. The only other HAA species measured above the MRL in the GAC effluent were SDS-BCAA and SDS-DCBAA, although these did not exceed a concentration of 3 µg/L. In general, effluent formed levels of DCAA and TCAA reached about 40 to 60 percent of formed influent levels. GAC effluent formed concentrations of the brominated species typically reached higher relative GAC effluent levels: 90 to 120 percent of GAC influent concentrations. Again, the relatively poor control of the brominated HAA species in the GAC effluent can be attributed to the increase in bromide to TOC ratio in the GAC effluent.

Effluent sample number	Effluent pH				Effluent temperature (°C)			
	January	April	June	October*	January	April	June	October*
1	8.2	7.6	8.6	8.0	22	22	25	22
2	7.6	7.5	7.8	7.7	22	23	24	22
3	7.7	7.6	7.9	7.7	22	22	23	22
4	7.7	7.7	7.7	7.8	22	22	26	22
5	7.6	6.8	7.8	7.8	22	22	22	21
6	7.5	7.3	7.7	7.7	22	21	25	22
7	7.8	7.7	7.8	7.7	22	22	25	21
8	7.7	7.6	7.9	7.7	21	22	26	22
9	7.8	7.6	8.0	7.8	22	22	26	20
10	7.8	7.9	8.1	7.8	22	22	23	21
11	7.8	7.8	7.8	7.7	22	23	23	22
12	7.8	7.7	7.8	7.6	22	22	24	20
13		7.6	7.7	7.7		22	23	19
Mean	7.7	7.6	7.9	7.7	22	22	24	21
Standard deviation	±0.2	±0.3	±0.2	±0.1	±0.3	±0.4	±1.3	±0.9
Relative percent error	2	4	3	1	1	2	5	4

Table 20 GAC effluent pH and temperature data for 10 minute EBCT contactors

Effluent sample number	Effluent pH				Effluent temperature (°C)			
	January	April	June	October*	January	April	June	October*
1	8.9	7.9	8.2	8.0	23	21	25	21
2	7.8	7.5	8.3	7.8	23	22	26	20
3	7.7	7.5	8.2	7.8	23	22	25	22
4	7.8	7.6	8.3	7.7	22	22	23	21
5	7.7	7.7	8.3	7.8	23	20	23	21
6	7.9	7.4	8.4	7.8	23	22	24	22
7	7.6	7.4	7.8	7.7	22	22	23	21
8	7.6	7.5	7.7	7.8	22	22	24	21
9	7.6	7.6	7.6	7.8	22	23	23	21
10	7.7	7.5	7.6		23	23	23	19
11	7.9	7.6	7.7	7.7	22	23	23	20
12	7.7	7.6	7.9		23	24	24	
13		7.6	7.9	7.8		24	24	22
Mean	7.8	7.5	8.0	7.8	23	22	24	21
Standard deviation	±0.3	±0.1	±0.3	±0.1	±0.3	±1.0	±0.9	±0.8
Relative percent error	4	2	4	1	1	5	4	4

Table 21 GAC effluent pH and temperature data for 20 minute EBCT contactors

Parameter	Units	Value	Run time (days)				Sessions 1 - 3		
			Session				Mean	Standard deviation	Relative standard deviation (%)
			1 January	2 April	3 June	4 October[†]			
TOC	(mg/L)	2.0	*	*	*	*			
		1.0	115	138	92	60	115	±23	20%
		c/c_0 = 50%[††]	122	93	80	60	99	±21	22%
UV-254	(1/cm)	0.040	*	*	*	*			
		0.020	*	*	144	138	144		
		c/c_0 = 50%[††]	157	139	130	95	142	±14	10%
SDS-THM4	(µg/L)	80	*	*	*	*			
		64	*	*	*	*			
		32	*	*	188	155	188		
SDS-HAA5	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-HAA6	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-HAA9	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-TOX	(µg Cl^-/L)	120	*	*	*	*			
		70	185	*	99	72	142	±60	42%
Study length	(days)	--	265	159	192	182	205	±54	27%

[†]7.2 minute EBCT

[††]GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time, calculated values are left blank.

Table 22 Run times to selected GAC effluent criteria (10 minute EBCT)

Parameter	Units	Value	Run time (days)				Sessions 1 - 3		
			Session				Mean	Standard deviation	Relative standard deviation (%)
			1 January	2 April	3 June	4 October[†]			
TOC	(mg/L)	2.0	*	*	*	*			
		1.0	293	332	266	157	297	±33	11%
		c/c_0 = 50%[††]	307	213	231	158	250	±50	20%
UV-254	(1/cm)	0.040	*	*	*	*			
		0.020	*	*	*	*			
		c/c_0 = 50%[††]	*	335	352	228	343	±12	3%
SDS-THM4	(µg/L)	80	*	*	*	*			
		64	*	*	*	*			
		32	*	*	*	253			
SDS-HAA5	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-HAA6	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-HAA9	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-TOX	(µg Cl^-/L)	120	*	*	*	*			
		70	*	*	279	194	279		
Study length	(days)	--	374	338	365	262	359	±19	5%

[†]14.4 minute EBCT

[††]GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time, calculated values are left blank.

Table 23 Run times to selected GAC effluent criteria (20 minute EBCT)

Parameter	Units	Influent concentration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (single contactor)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	2.1	2.0	*	*							
			1.0	115	16,540	1.0	0.011	10	4	6	7	42
			1.0†	122	17,560	1.0	0.011	10	4	6	7	46
UV_{254}	(1/cm)	0.030	0.040	*	*							
			0.020	*	*							
			0.015†	157	22,660	1.2	0.015	17	6	7	8	60
SDS-THM4	(µg/L)	22	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	16	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	18	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	20	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	121	120	*	*							
			70	185	26,570	1.3	0.018	19	6	8	10	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, value of listed parameter is left blank.
#Data not available for listed parameter at given breakthrough criterion.

Table 24 Run times to selected GAC effluent criteria (10 minute EBCT) during session 1, January

Parameter	Units	Influent concentration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (single contactor)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	2.1	2.0	*	*							
			1.0	293	21,120	1.0	0.011	11	4	5	7	46
			1.0†	307	22,100	1.0	0.011	11	4	6	8	46
UV_{254}	(1/cm)	0.030	0.040	*	*							
			0.020	*	*							
			0.015†	*	*							
SDS-THM4	(µg/L)	22	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	16	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	18	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	20	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	121	120	*	*							
			70	*	*							

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, value of listed parameter is left blank.
#Data not available for listed parameter at given breakthrough criterion.

Table 25 Run times to selected GAC effluent criteria (20 minute EBCT) during session 1, January

Parameter	Units	Influent concentration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (single contactor)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	1.5	2.0	*	*							
			1.0	138	19,810	1.0	0.015	17	8	9	11	63
			0.8†	93	13,450	0.8	0.011	13	6	7	8	44
UV_{254}	(1/cm)	0.030	0.040	*	*							
			0.020	*	*							
			0.015†	139	20,050	1.0	0.015	17	8	9	11	63
SDS-THM4	(µg/L)	32	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	16	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	17	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	19	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	123	120	*	*							
			70	*	*							

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, value of listed parameter is left blank.
#Data not available for listed parameter at given breakthrough criterion.

Table 26 Run times to selected GAC effluent criteria (10 minute EBCT) during session 2, April

Parameter	Units	Influent concen-tration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (single contactor)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	1.5	2.0	*	*							
			1.0	332	23,910	1.0	0.015	19	8	9	10	66
			0.8†	213	15,370	0.8	0.010	13	4	5	6	42
UV_{254}	(1/cm)	0.030	0.040	*	*							
			0.020	*	*							
			0.015†	335	24,120	1.0	0.015	19	8	10	11	66
SDS-THM4	(µg/L)	32	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	16	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	17	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	19	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	123	120	*	*							
			70	*	*							

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, value of listed parameter is left blank.
#Data not available for listed parameter at given breakthrough criterion.

Table 27 Run times to selected GAC effluent criteria (20 minute EBCT) during session 2, April

Parameter	Units	Influent concen-tration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (single contactor)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	1.9	2.0	*	*							
			1.0	92	13,320	1.0	0.013	20	8	10	12	66
			0.9†	80	11,590	0.9	0.012	17	7	9	11	57
UV_{254}	(1/cm)	0.038	0.040	*	*							
			0.020	144	20,720	1.3	0.020	27	12	15	17	92
			0.019†	130	18,760	1.2	0.019	26	11	13	16	86
SDS-THM4	(µg/L)	43	80	*	*							
			64	*	*							
			32	188	27,060	1.4	0.023	32	15	17	20	109
SDS-HAA5	(µg/L)	22	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	24	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	27	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	174	120	*	*							
			70	99	14,310	1.0	0.014	21	8	11	13	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, value of listed parameter is left blank.
#Data not available for listed parameter at given breakthrough criterion.

Table 28 Run times to selected GAC effluent criteria (10 minute EBCT) during session 3, June

Parameter	Units	Influent concen-tration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (single contactor)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	1.9	2.0	*	*							
			1.0	266	19,190	1.0	0.014	21	7	9	11	69
			0.9†	231	16,630	0.9	0.012	19	8	11	13	63
UV_{254}	(1/cm)	0.038	0.040	*	*							
			0.020	*	*							
			0.019†	352	25,320	1.3	0.019	24	11	13	16	91
SDS-THM4	(µg/L)	43	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	22	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	24	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	27	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	174	120	*	*							
			70	279	20,070	1.0	0.014	21	7	9	12	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, value of listed parameter is left blank.
#Data not available for listed parameter at given breakthrough criterion.

Table 29 Run times to selected GAC effluent criteria (20 minute EBCT) during session 3, June

Parameter	Units	Influent concen-tration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (single contactor)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	2.0	2.0	*	*							
			1.0	60	12,030	1.0	0.010	16	7	9	11	53
			1.0†	60	12,080	1.0	0.010	16	7	9	11	54
UV_{254}	(1/cm)	0.032	0.040	*	*							
			0.020	138	27,650	1.5	0.020	30	12	14	17	98
			0.016†	95	18,900	1.3	0.016	25	9	11	13	83
SDS-THM4	(µg/L)	42	80	*	*							
			64	*	*							
			32	155	31,010	1.6	0.021	32	13	15	18	104
SDS-HAA5	(µg/L)	23	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	26	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	29	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	156	120	*	*							
			70	72	14,370	1.1	0.013	19	7	9	11	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, value of listed parameter is left blank.
#Data not available for listed parameter at given breakthrough criterion.

Table 30 Run times to selected GAC effluent criteria (7.2 minute EBCT) during session 4, October

Parameter	Units	Influent concentration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (single contactor)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	2.0	2.0	*	*							
			1.0	157	15,720	1.0	0.010	17	5	7	9	53
			1.0†	158	15,760	1.0	0.010	17	5	7	9	54
UV_{254}	(1/cm)	0.032	0.040	*	*							
			0.020	*	*							
			0.016†	228	22,820	1.4	0.016	27	10	13	15	80
SDS-THM4	(µg/L)	42	80	*	*							
			64	*	*							
			32	253	25,280	1.4	0.018	32	11	14	16	90
SDS-HAA5	(µg/L)	23	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	26	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	29	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	156	120	*	*							
			70	194	19,390	1.2	0.013	23	7	9	11	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, value of listed parameter is left blank.
#Data not available for listed parameter at given breakthrough criterion.

Table 31 Run times to selected GAC effluent criteria (14.4 minute EBCT) during session 4, October

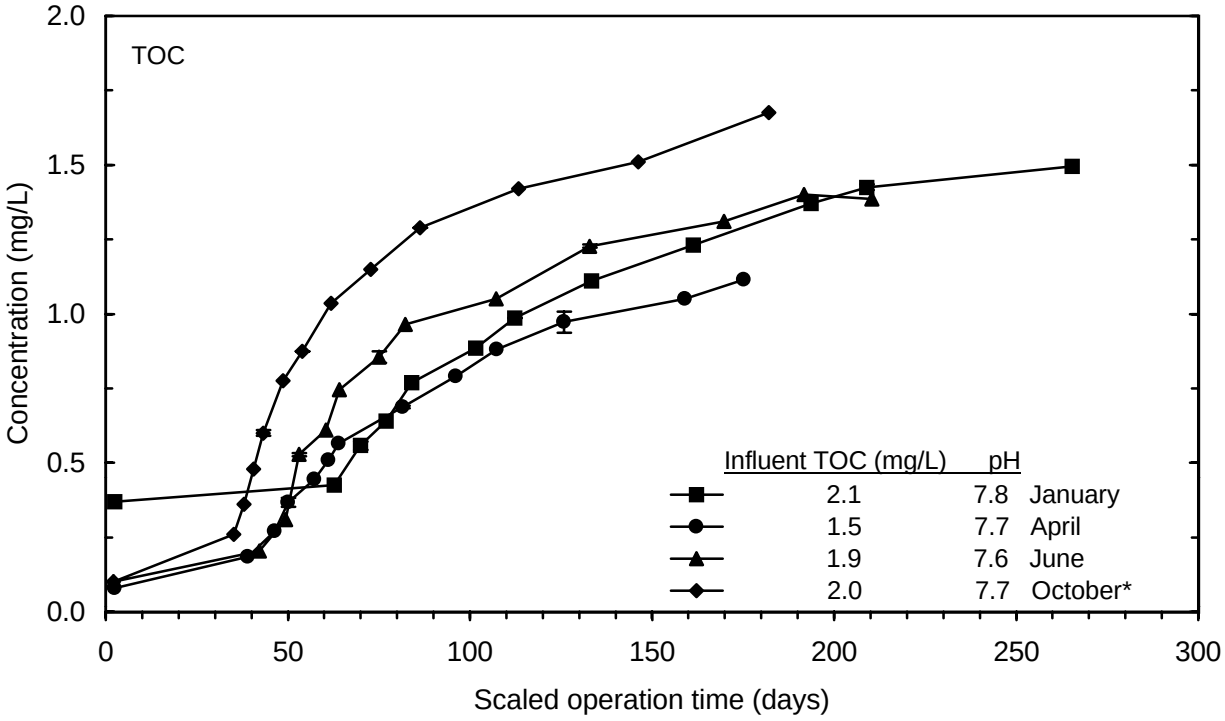


Figure 6 TOC breakthrough for 10 minute EBCT contactors for each session

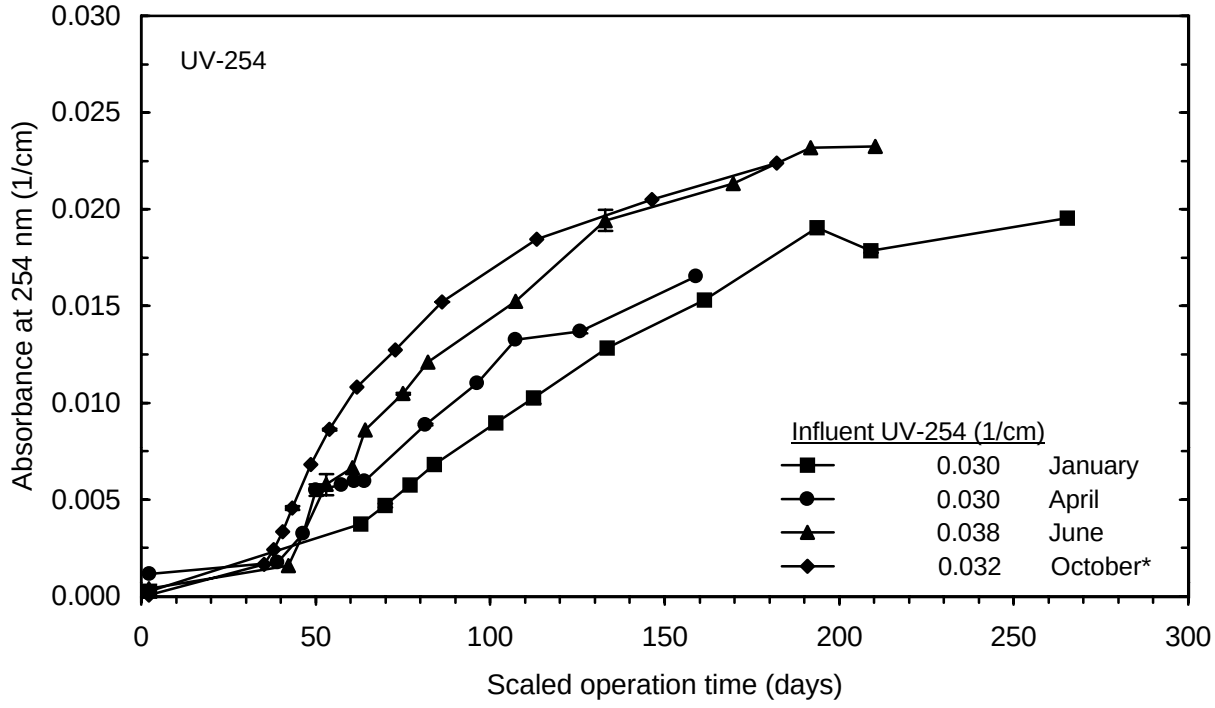


Figure 7 UV-254 breakthrough for 10 minute EBCT contactors for each session

*7.2 minute EBCT

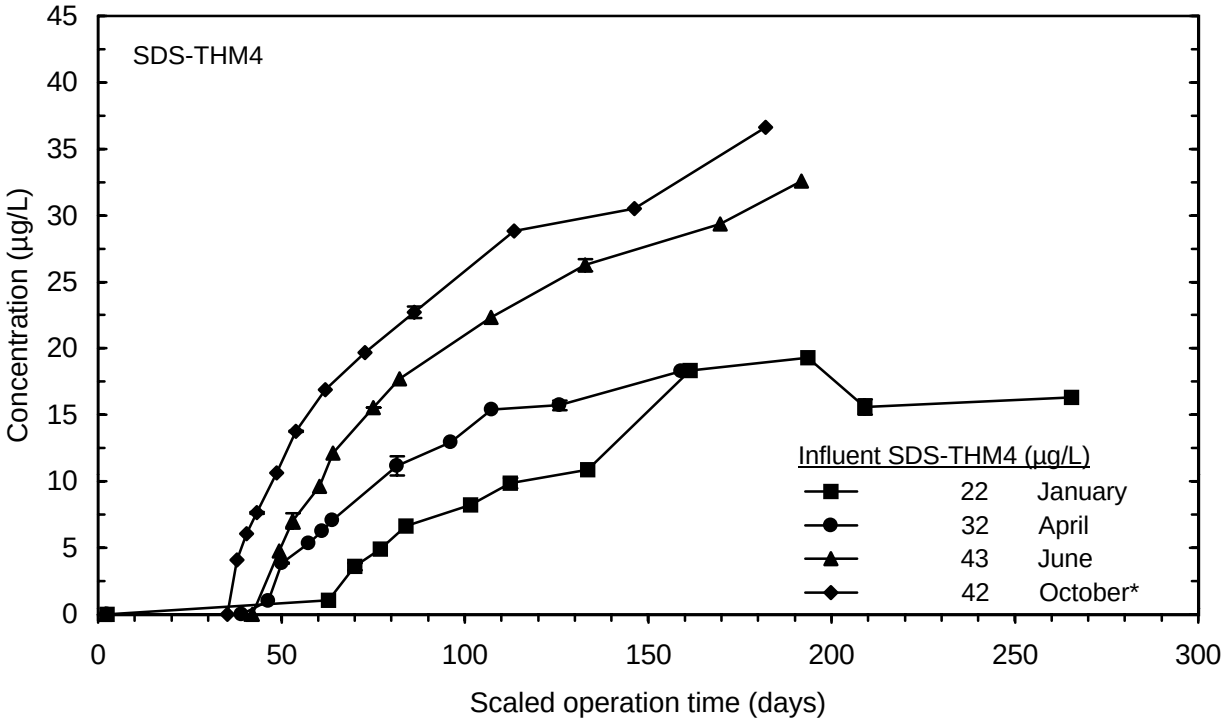


Figure 8 SDS-THM4 breakthrough for 10 minute EBCT contactors for each session

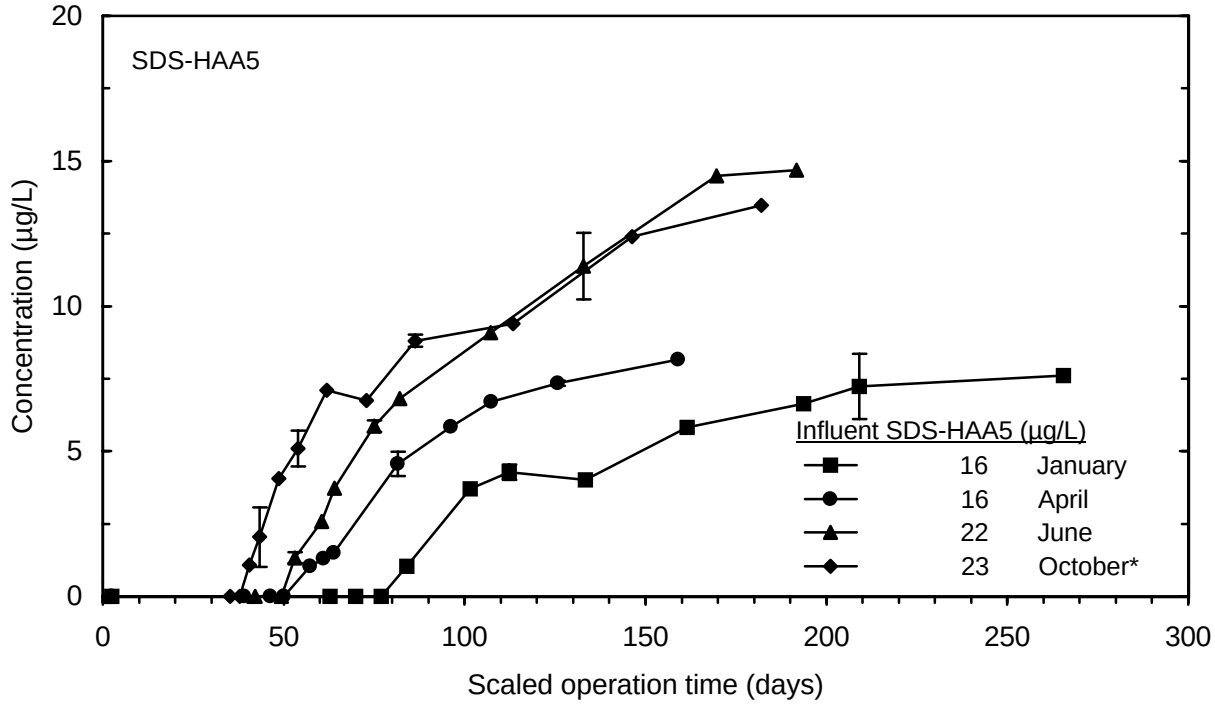


Figure 9 SDS-HAA5 breakthrough for 10 minute EBCT contactors for each session

*7.2 minute EBCT

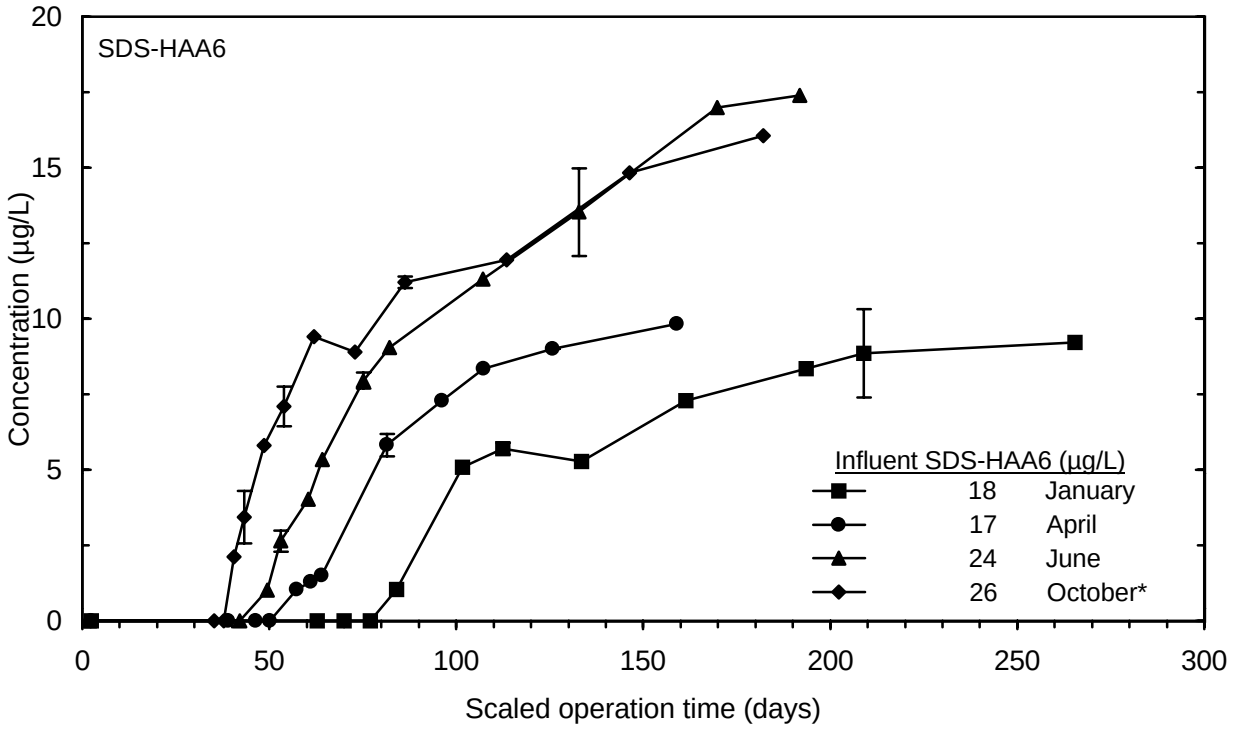


Figure 10 SDS-HAA6 breakthrough for 10 minute EBCT contactors for each session

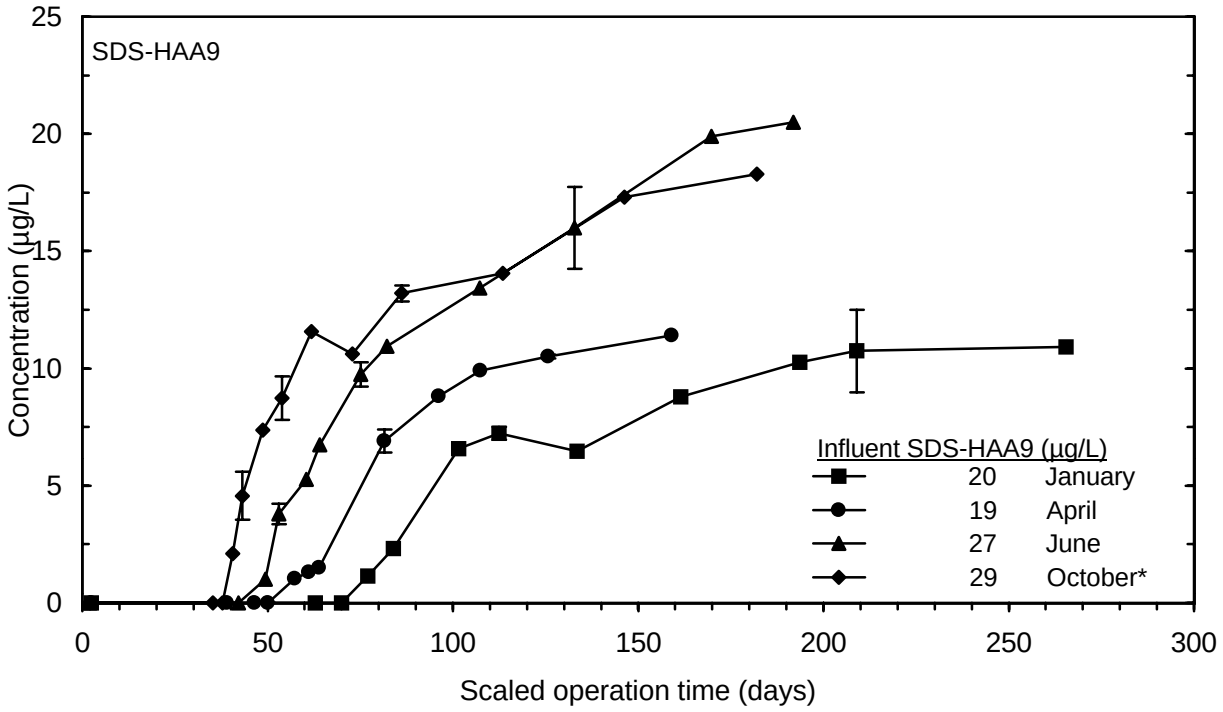


Figure 11 SDS-HAA9 breakthrough for 10 minute EBCT contactors for each session

*7.2 minute EBCT

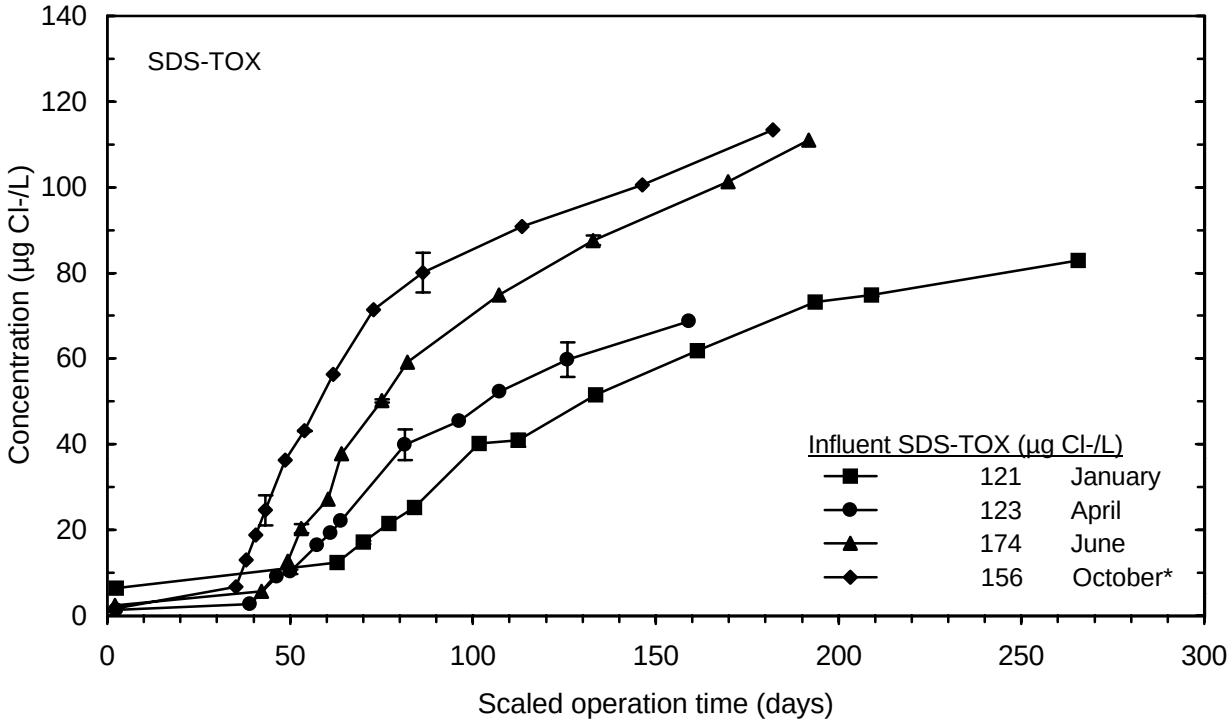


Figure 12 SDS-TOX breakthrough for 10 minute EBCT contactors for each session

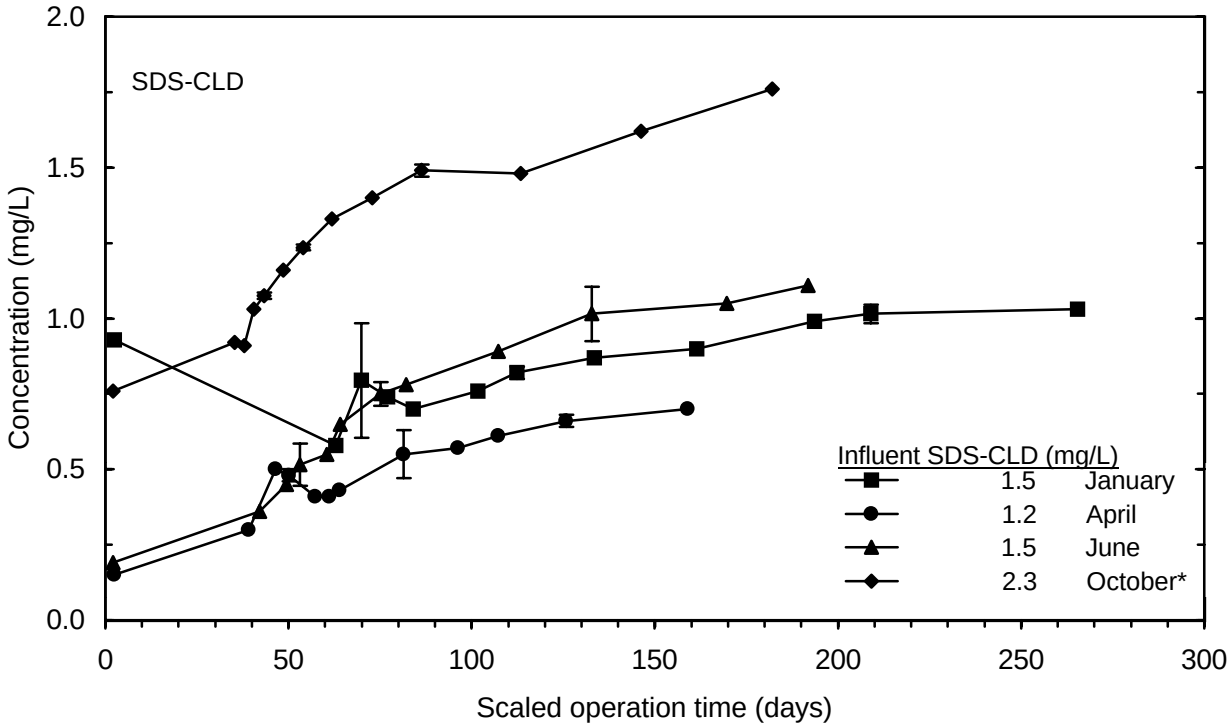


Figure 13 SDS-CLD breakthrough for 10 minute EBCT contactors for each session

*7.2 minute EBCT

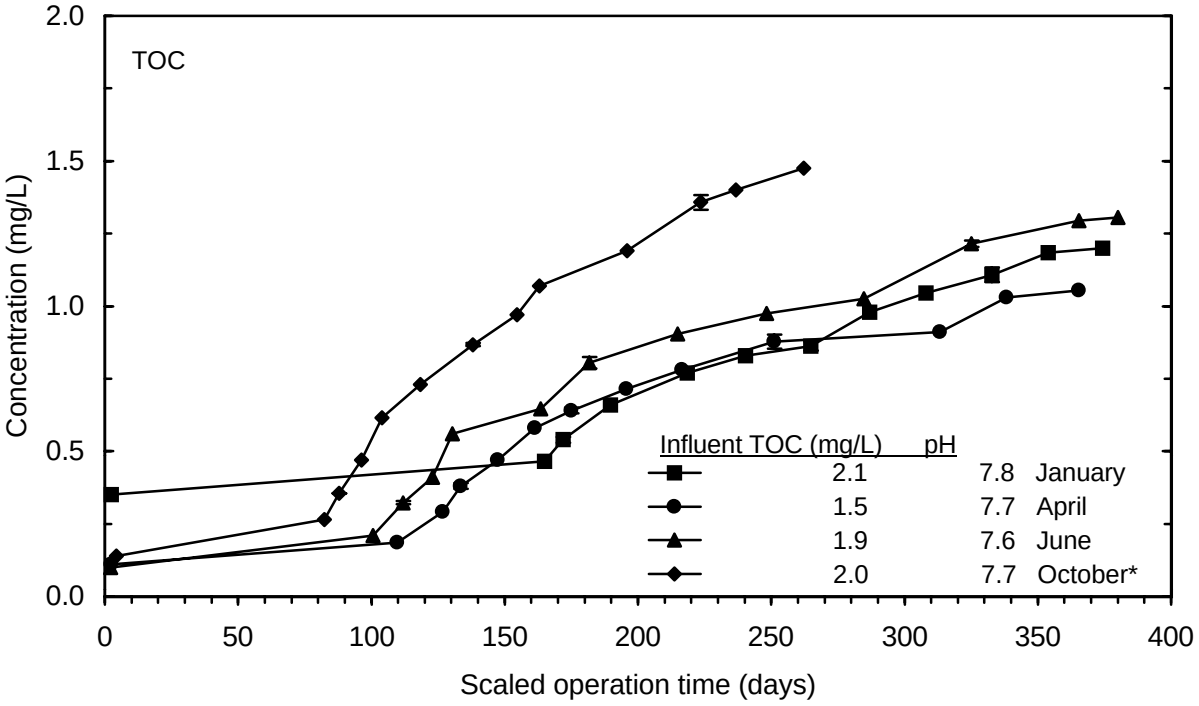


Figure 14 TOC breakthrough for 20 minute EBCT contactors for each session

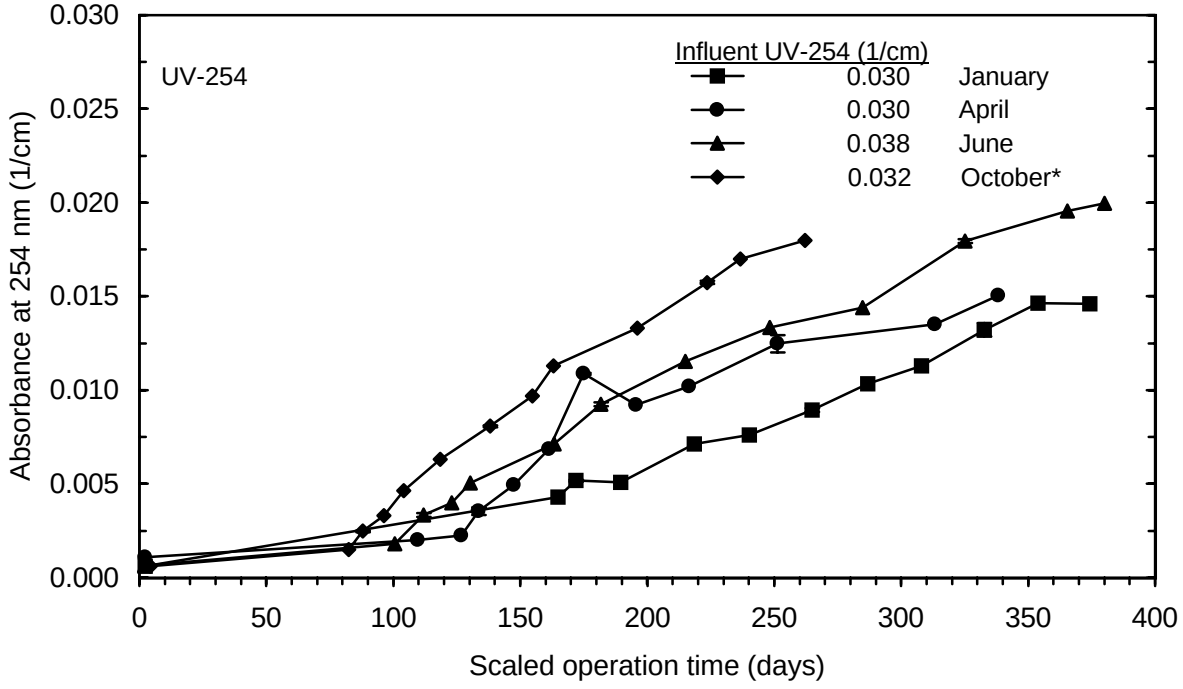


Figure 15 UV-254 breakthrough for 20 minute EBCT contactors for each session

*14.4 minute EBCT

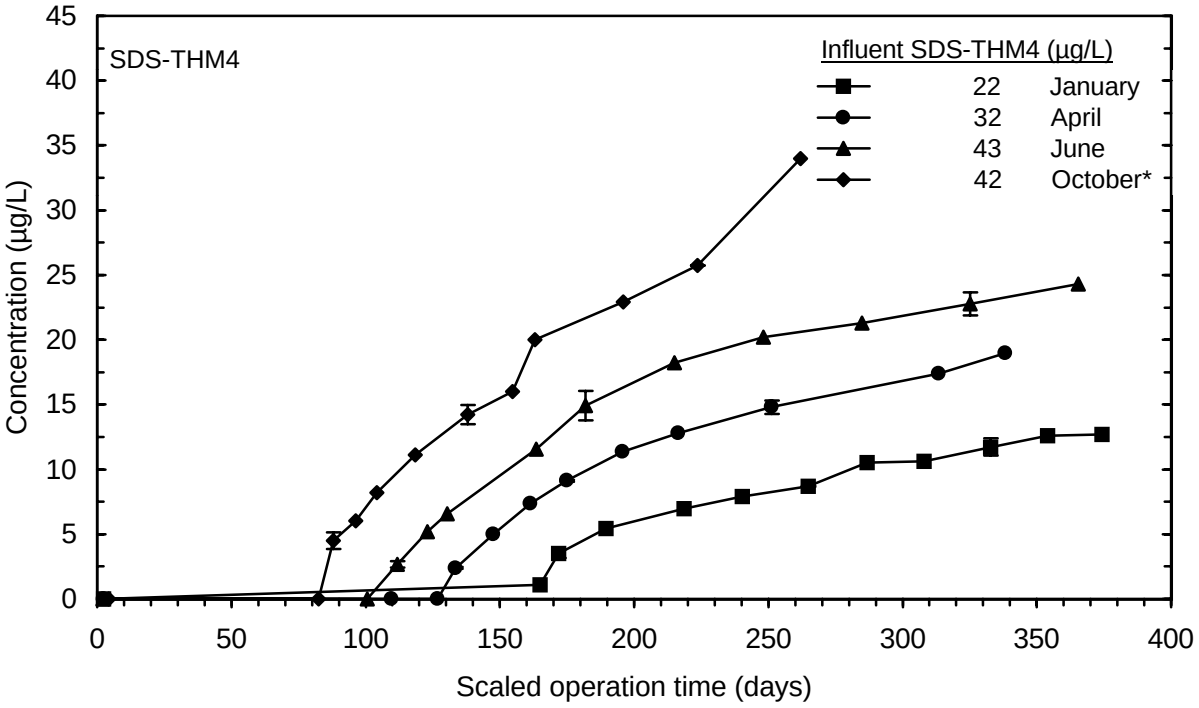


Figure 16 SDS-THM4 breakthrough for 20 minute EBCT contactors for each session

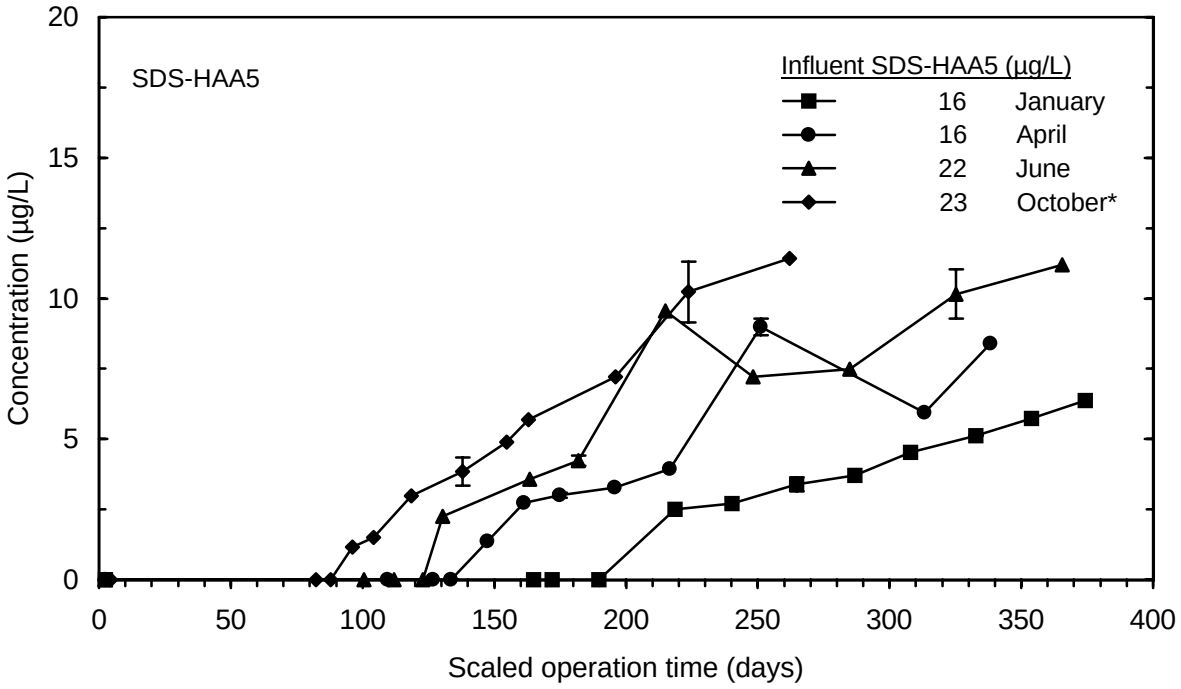


Figure 17 SDS-HAA5 breakthrough for 20 minute EBCT contactors for each session

*14.4 minute EBCT

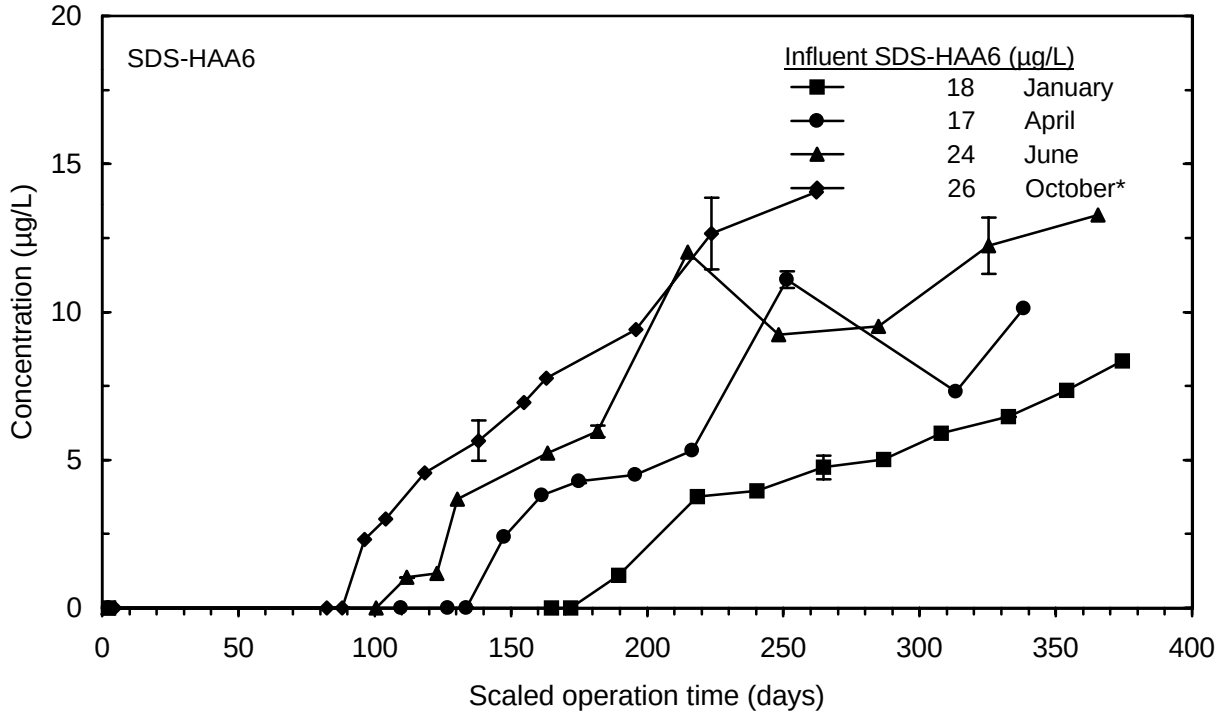


Figure 18 SDS-HAA6 breakthrough for 20 minute EBCT contactors for each session

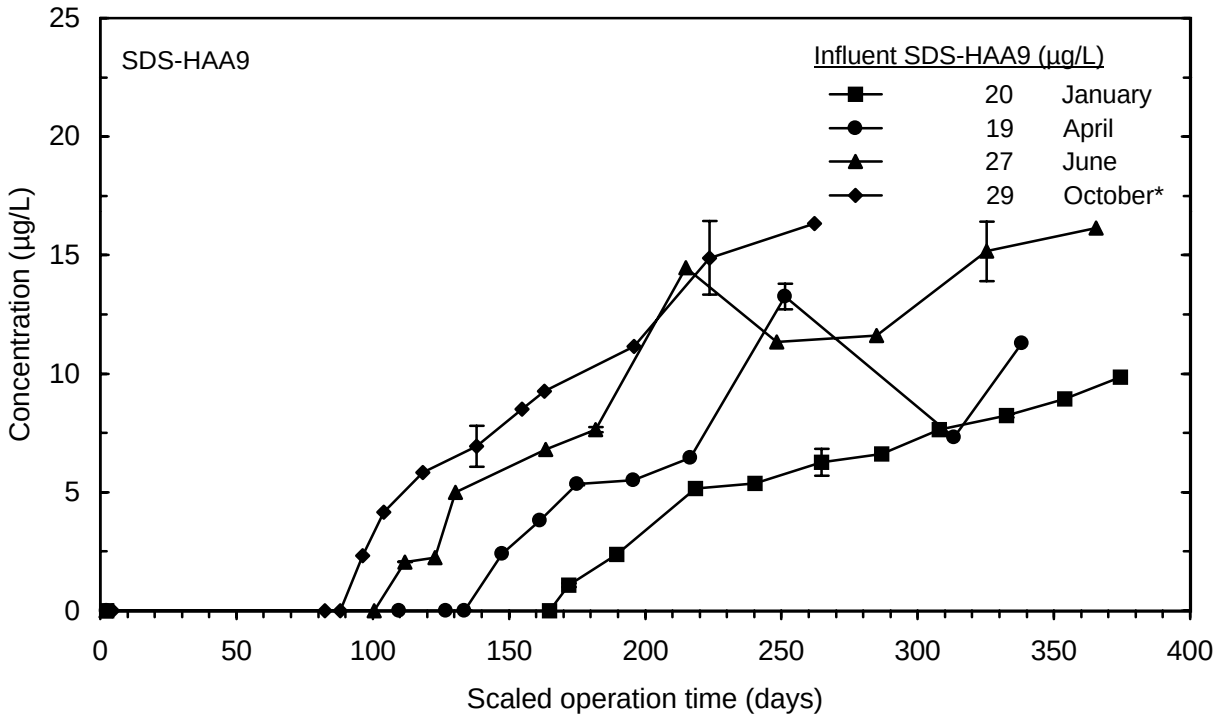


Figure 19 SDS-HAA9 breakthrough for 20 minute EBCT contactors for each session

*14.4 minute EBCT

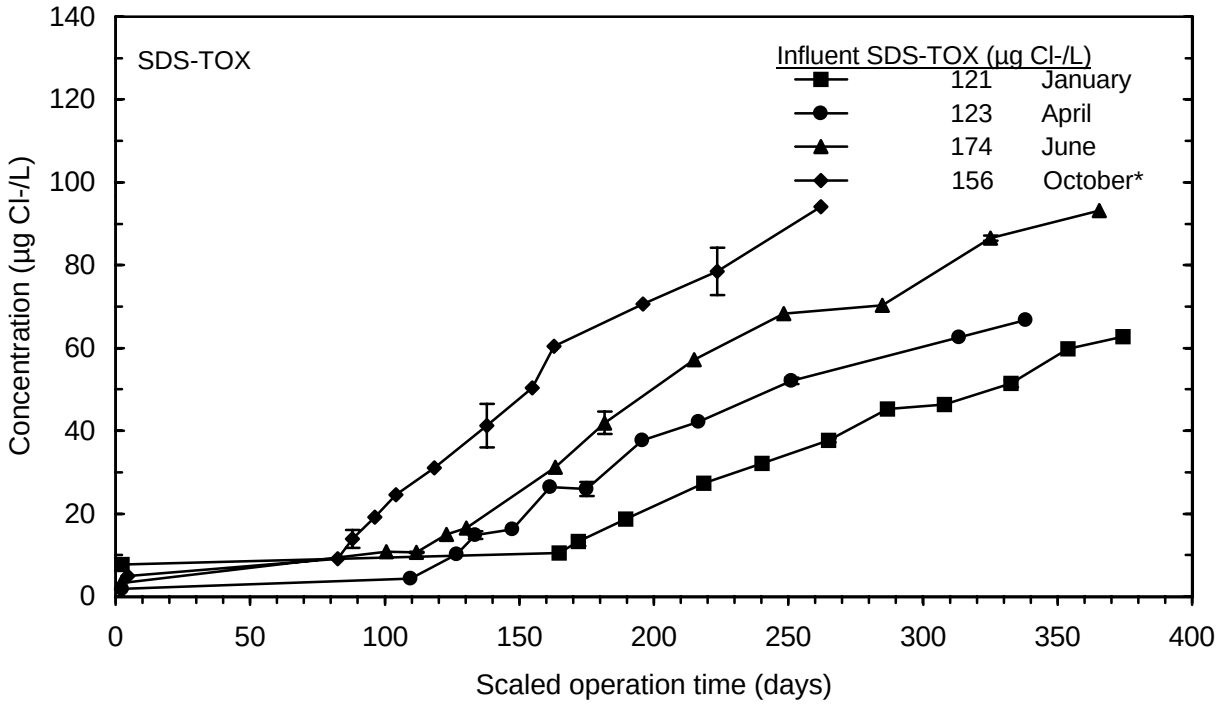


Figure 20 SDS-TOX breakthrough for 20 minute EBCT contactors for each session

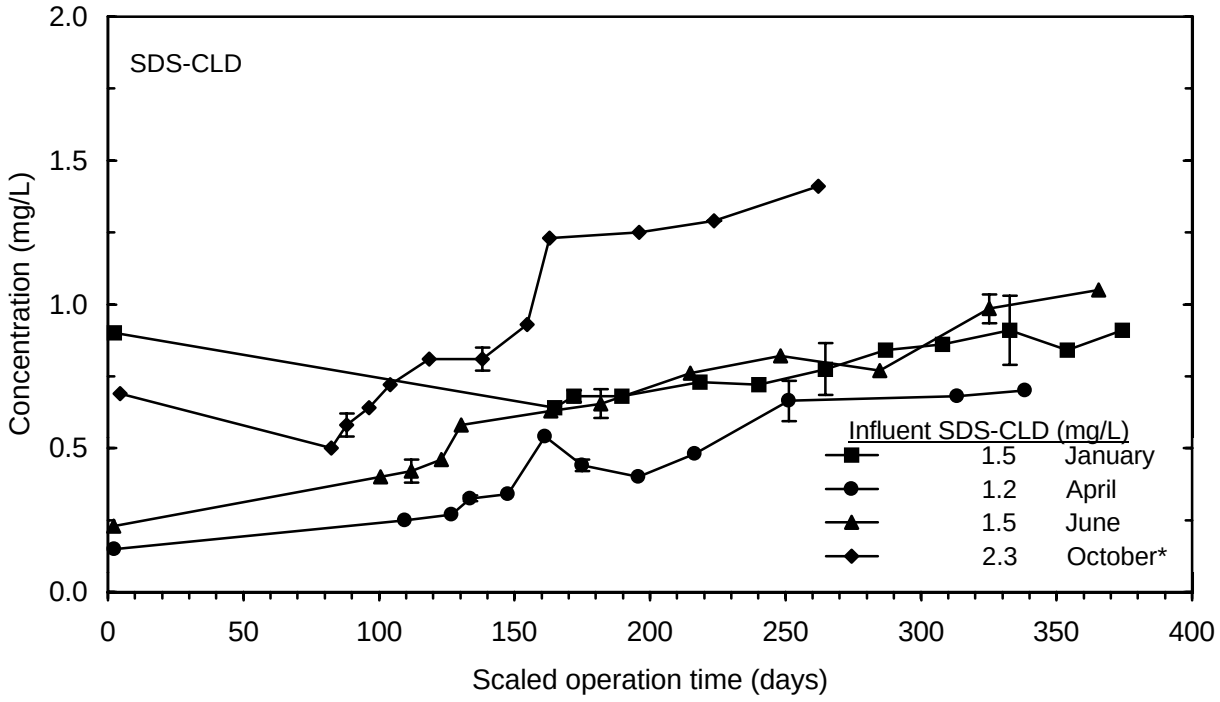


Figure 21 SDS-CLD breakthrough for 20 minute EBCT contactors for each session

*14.4 minute EBCT

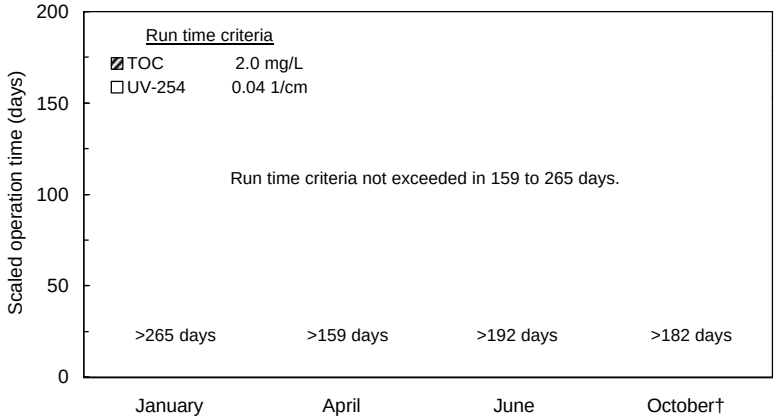


Figure 22 GAC run times based on single contactor breakthrough curves for TOC and UV-254 effluent criteria (high) for each session (10 minute EBCT)

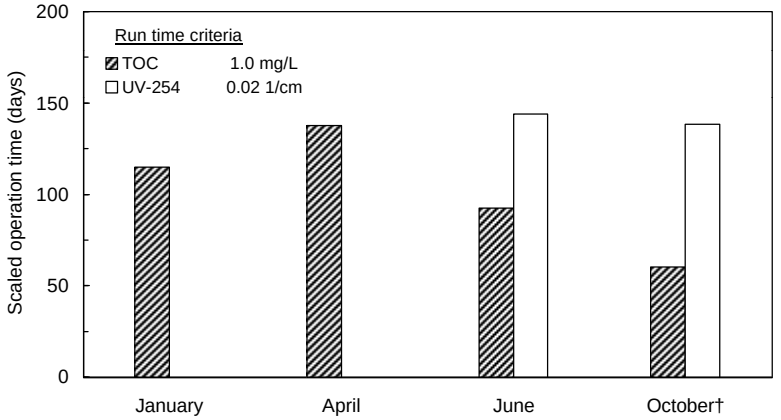


Figure 23 GAC run times based on single contactor breakthrough curves for TOC and UV-254 effluent criteria (low) for each session (10 minute EBCT)

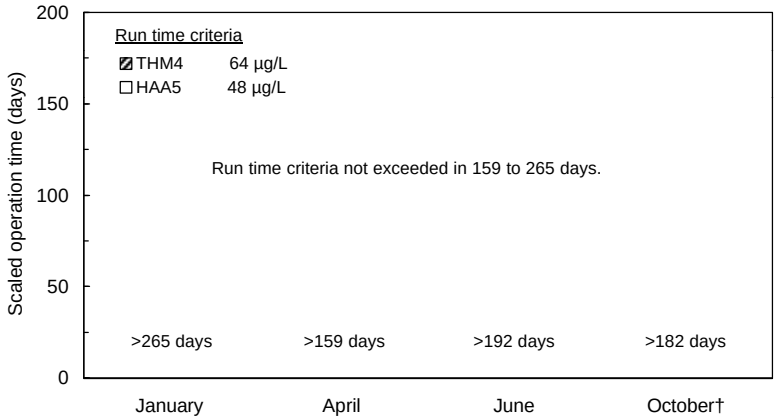
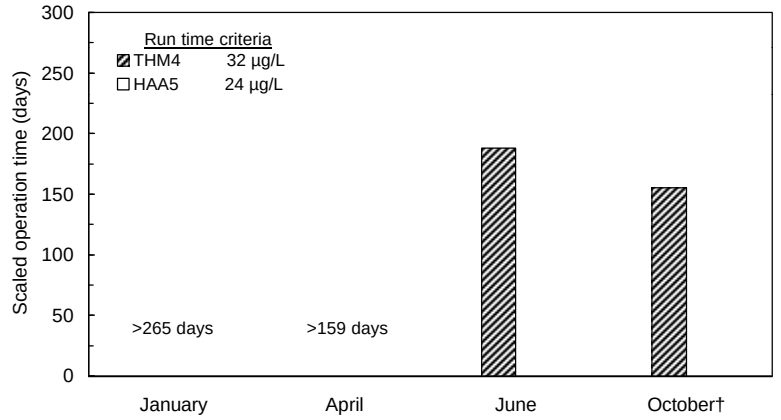


Figure 24 GAC run times based on single contactor breakthrough curves for Stage 1 THM4 and HAA5 effluent criteria for each session (10 minute EBCT)



†7.2 minute EBCT

Figure 25 GAC run times based on single contactor breakthrough curves for Stage 2 THM4 and HAA5 effluent criteria for each session (10 minute EBCT)

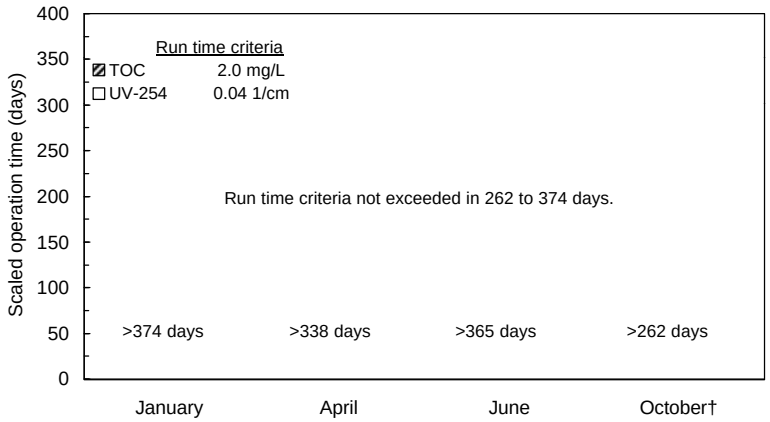


Figure 26 GAC run times based on single breakthrough curves for TOC and UV-254 effluent criteria for each session (20 minute EBCT)

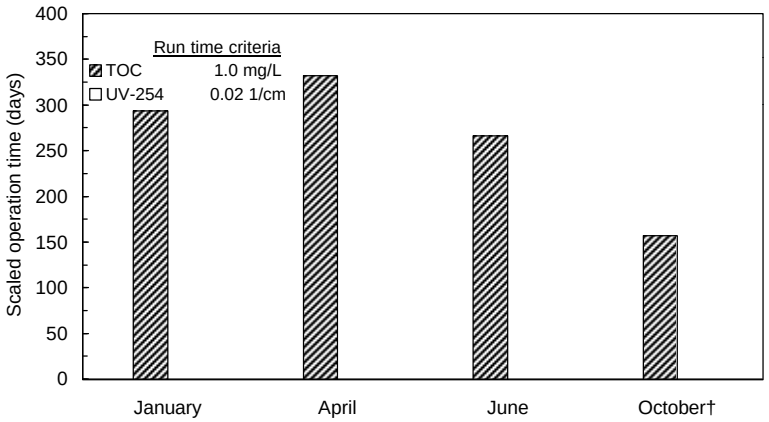


Figure 27 GAC run times based on single breakthrough curves for TOC and UV-254 effluent criteria for each session (20 minute EBCT)

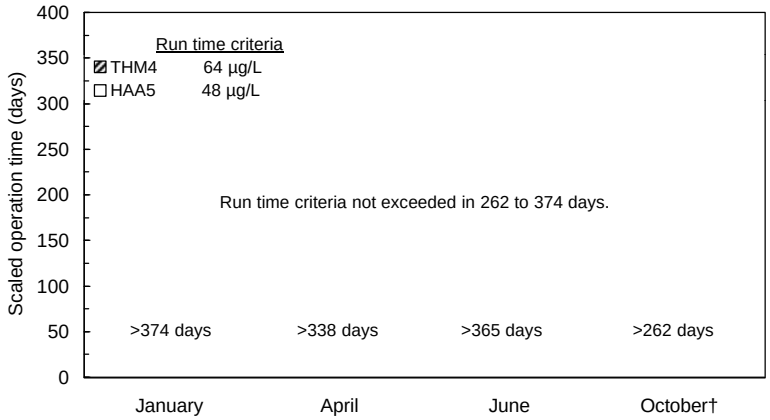


Figure 28 GAC run times based on single breakthrough curves for Stage 1 THM4 and HAA5 effluent criteria for each session (20 minute EBCT)

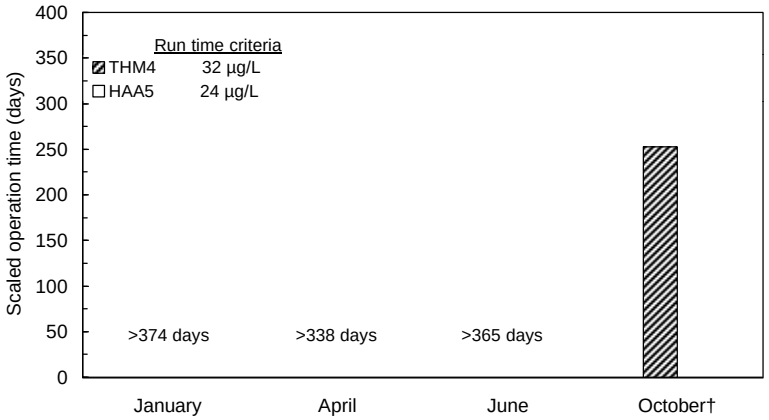


Figure 29 GAC run times based on single breakthrough curves for Stage 2 THM4 and HAA5 effluent criteria for each session (20 minute EBCT)

†14.4 minute EBCT

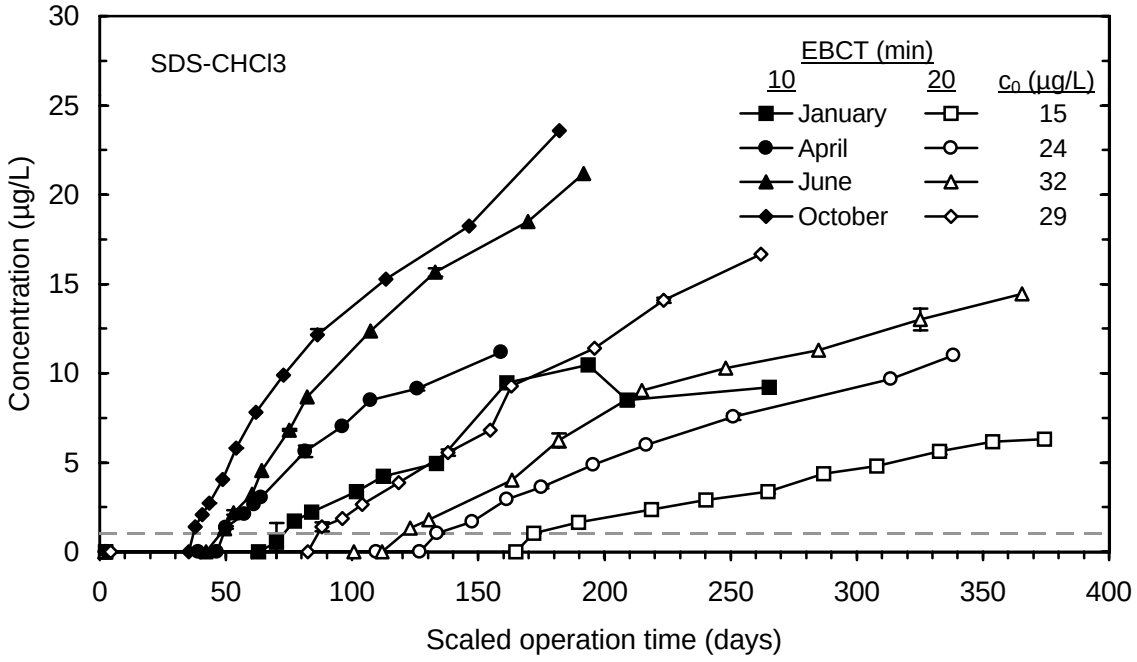


Figure 30 SDS-CHCl3 breakthrough for 10 and 20 minute EBCT contactors for each session

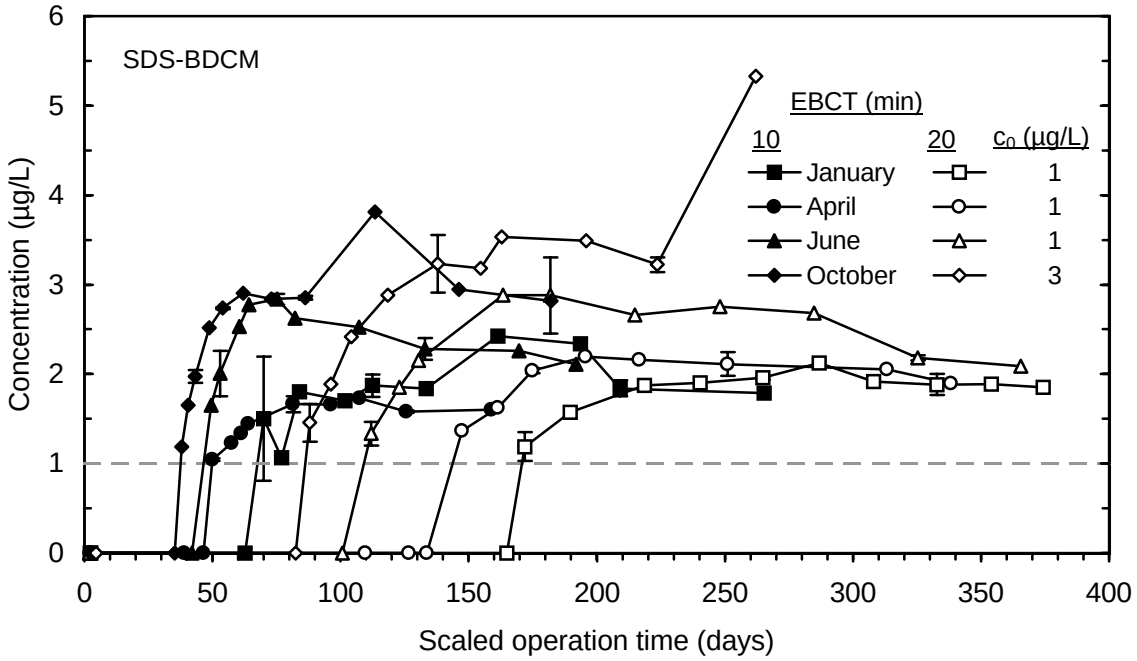


Figure 31 SDS-BDCM breakthrough for 10 and 20 minute EBCT contactors for each session

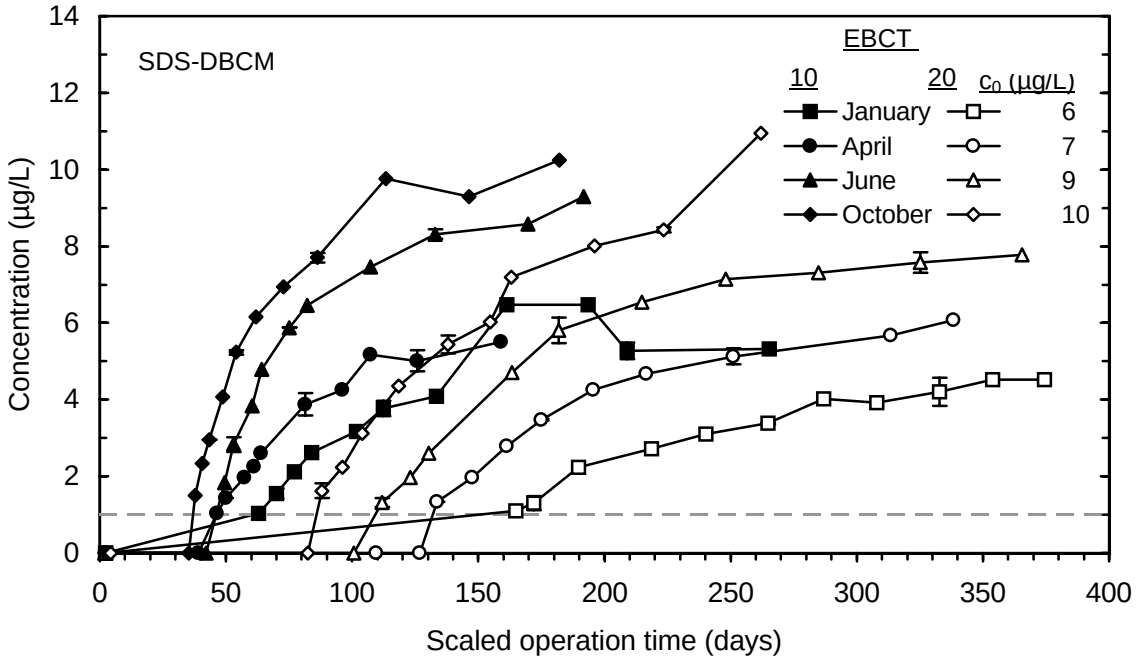


Figure 32 SDS-DBCM breakthrough for 10 and 20 minute EBCT contactors for each session

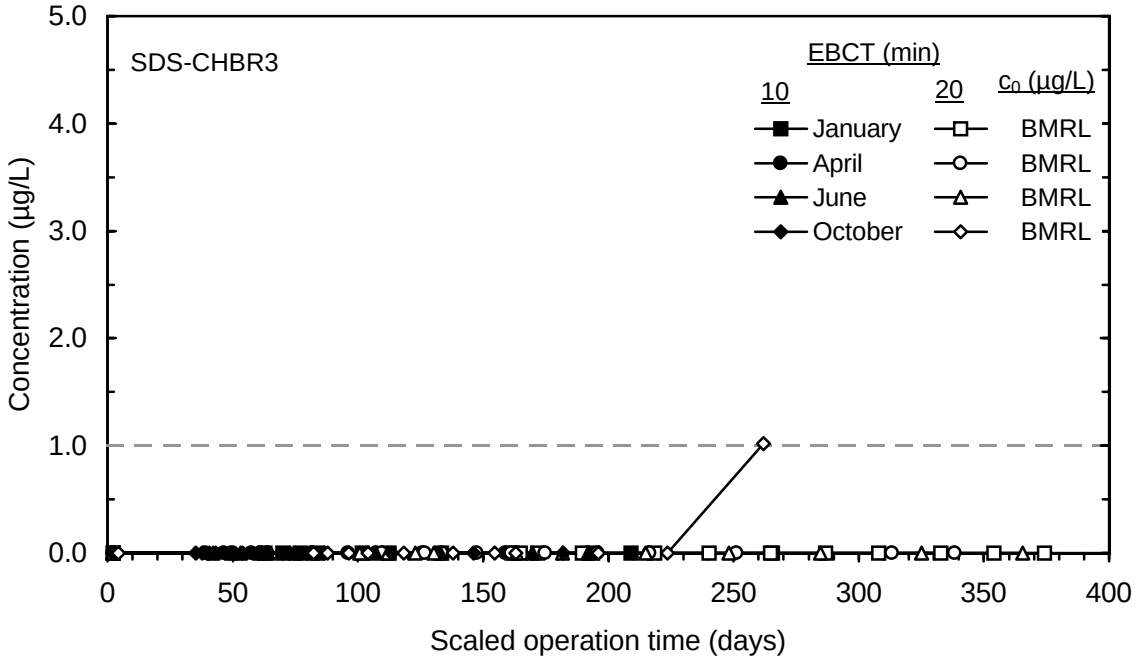


Figure 33 SDS-CHBR3 breakthrough for 10 and 20 minute EBCT contactors for each session

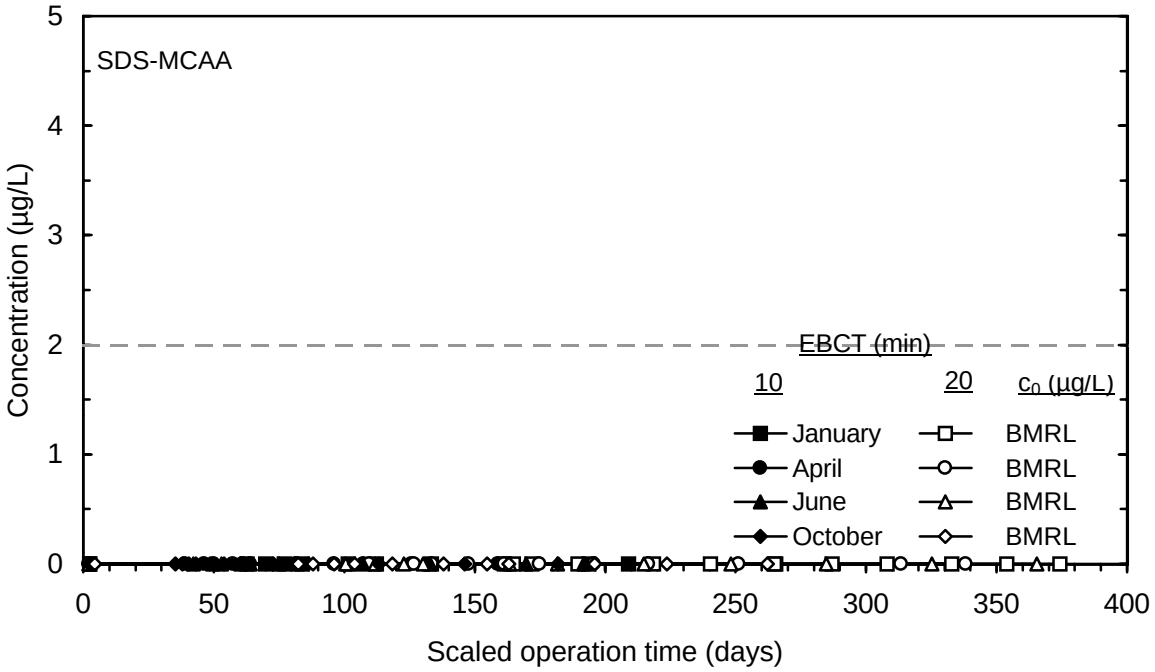


Figure 34 SDS-MCAA breakthrough for 10 and 20 minute EBCT contactors for each session

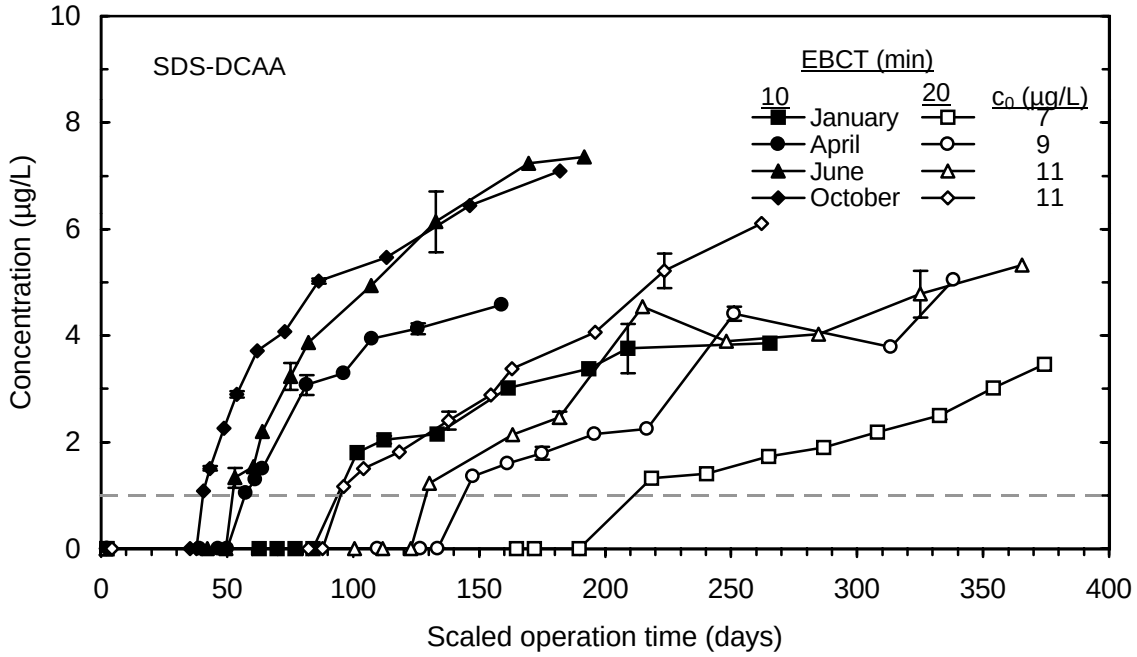


Figure 35 SDS-DCAA breakthrough for 10 and 20 minute EBCT contactors for each session

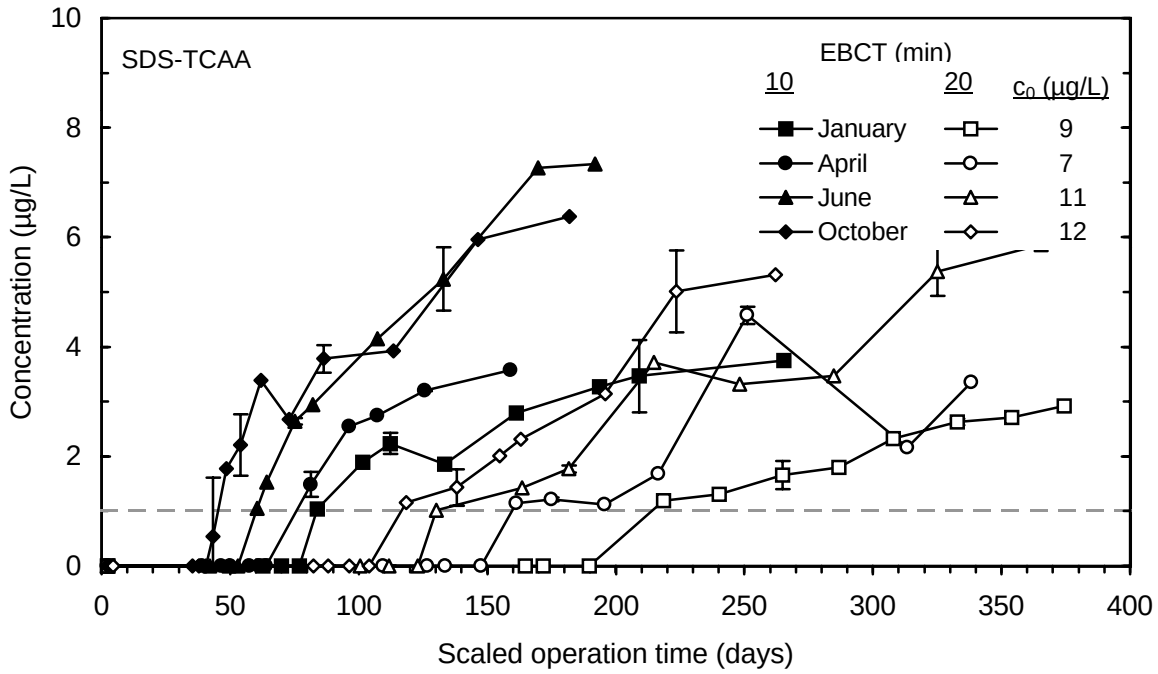


Figure 36 SDS-TCAA breakthrough for 10 and 20 minute EBCT contactors for each session

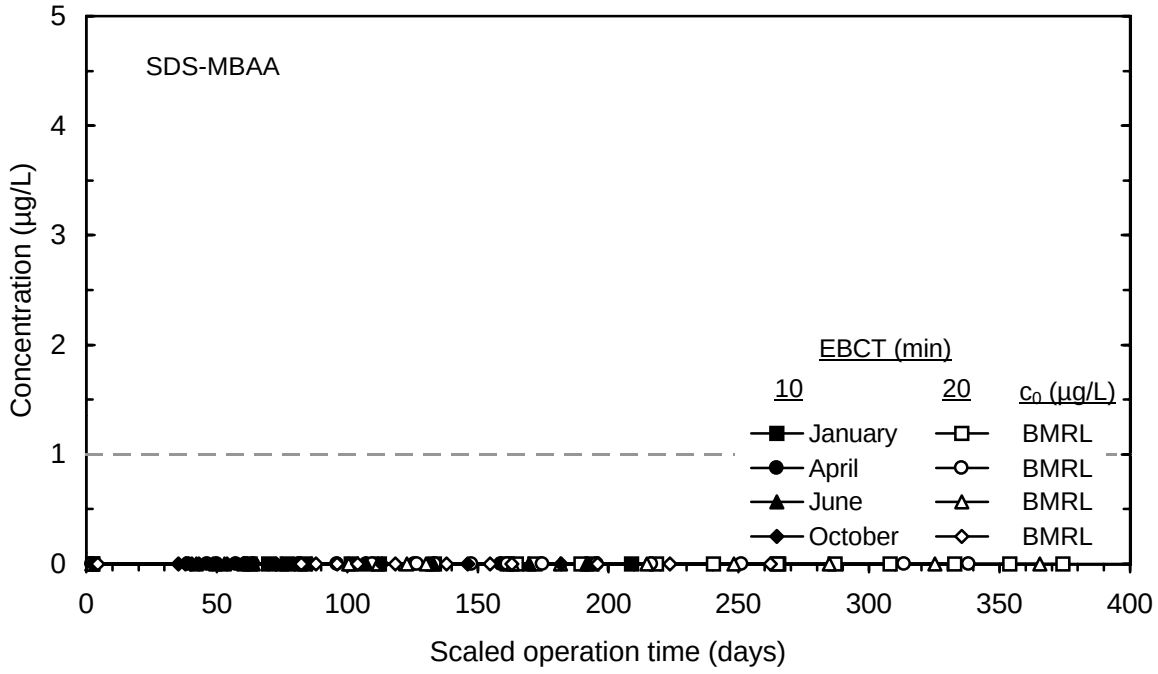


Figure 37 SDS-MBAA breakthrough for 10 and 20 minute EBCT contactors for each session

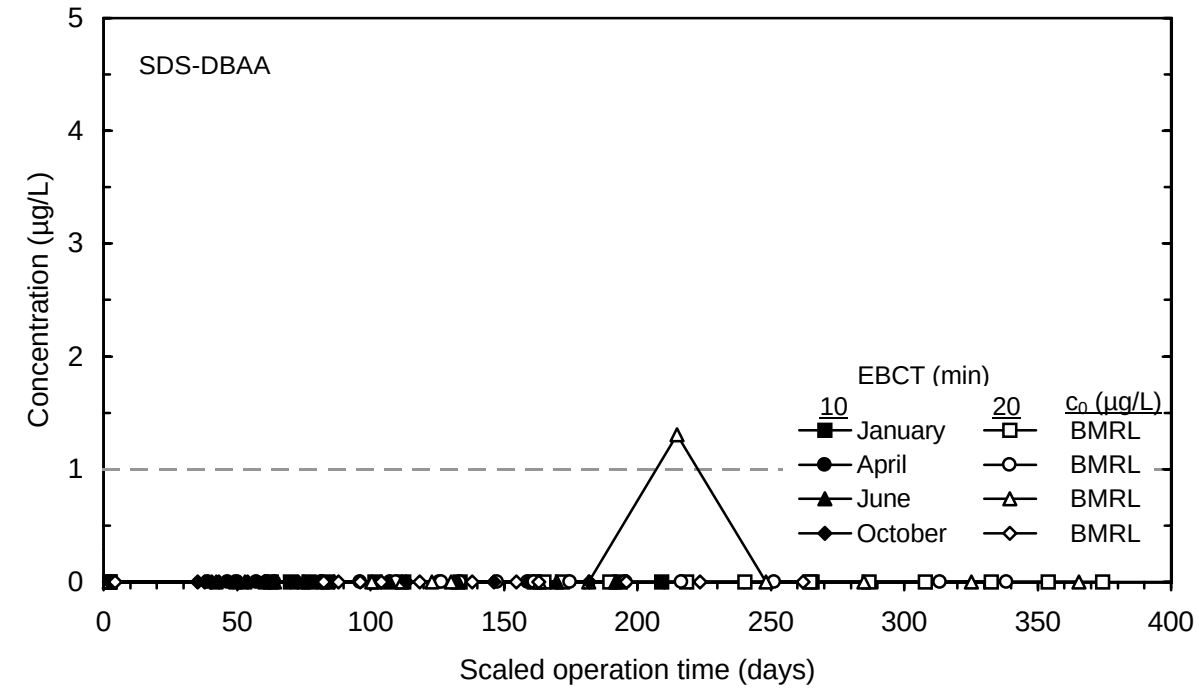


Figure 38 SDS-DBAA breakthrough for 10 and 20 minute EBCT contactors for each session

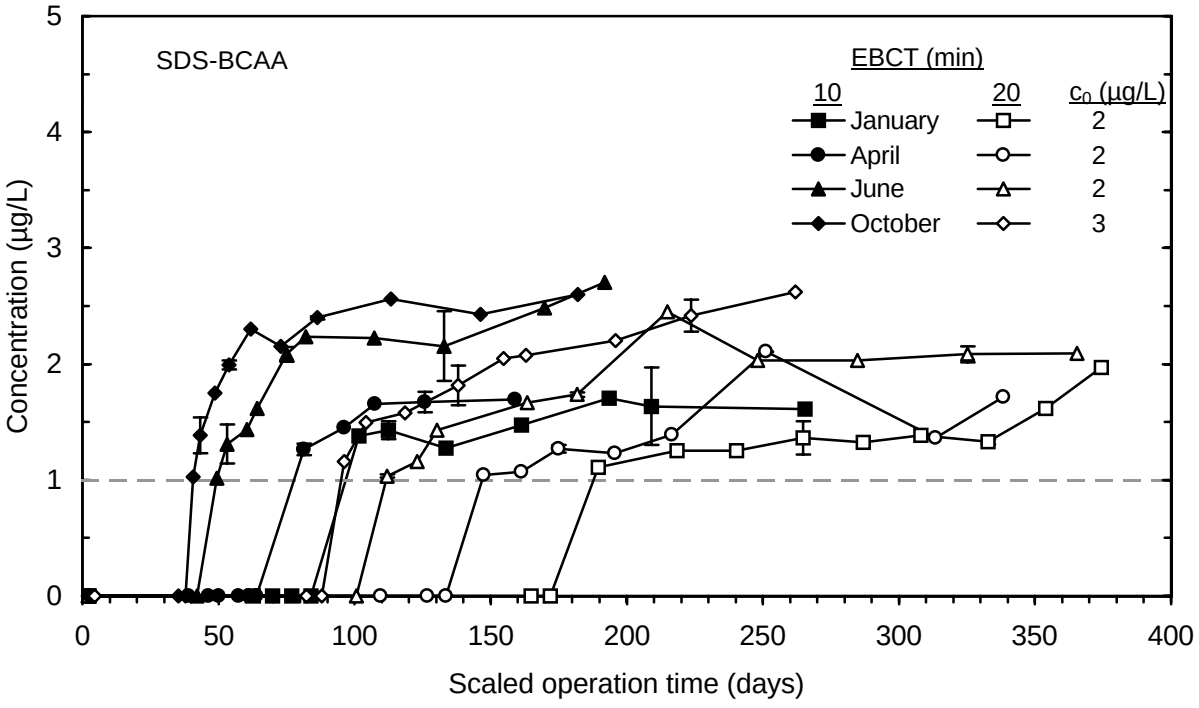


Figure 39 SDS-BCAA breakthrough for 10 and 20 minute EBCT contactors for each session

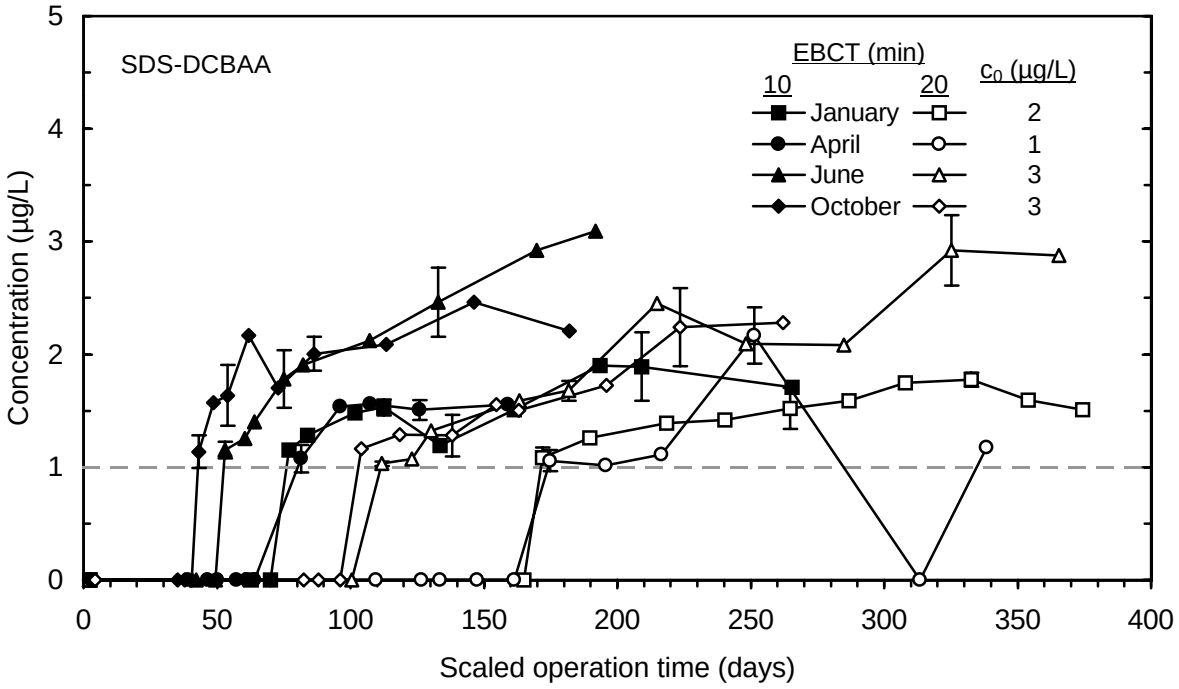


Figure 40 SDS-DCBAA breakthrough for 10 and 20 minute EBCT contactors for each session

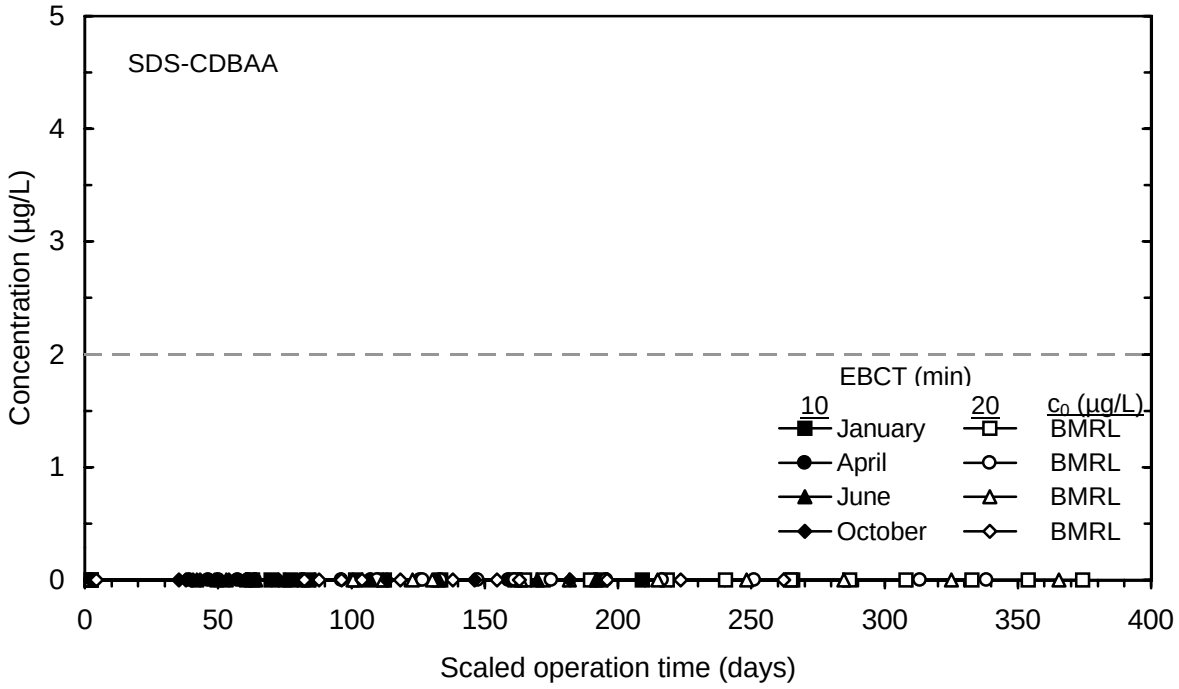


Figure 41 SDS-CDBAA breakthrough for 10 and 20 minute EBCT contactors for each session

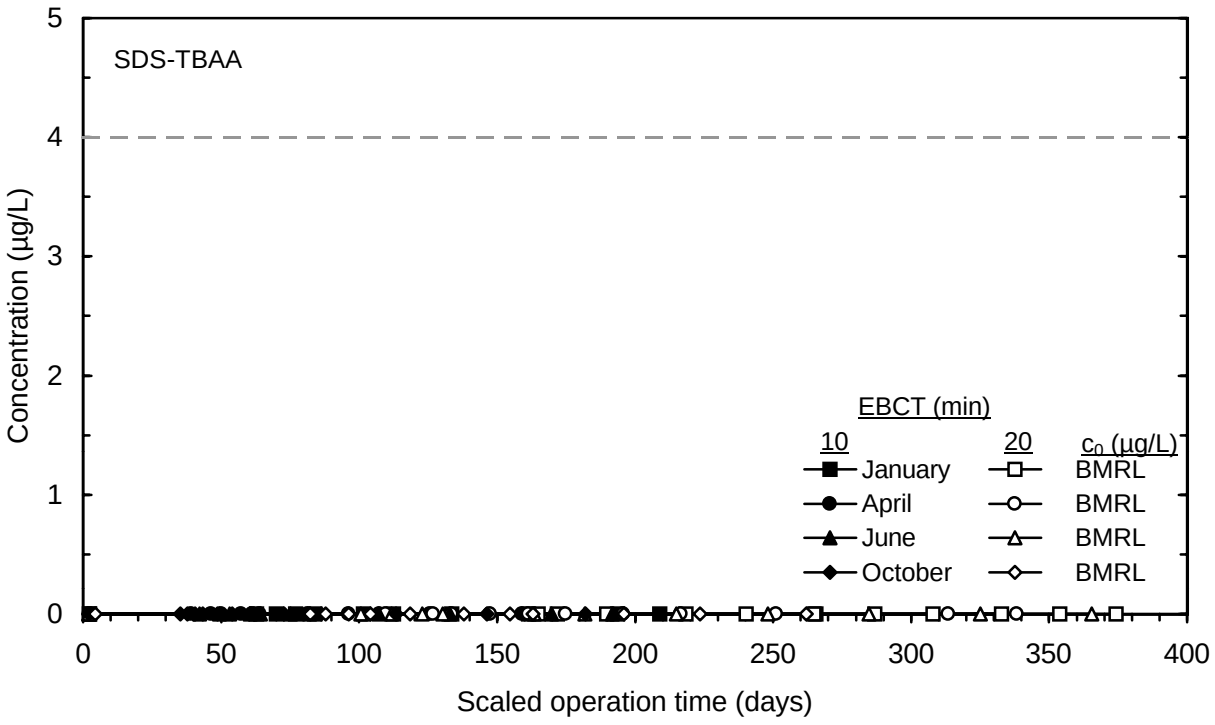


Figure 42 SDS-TBAA breakthrough for 10 and 20 minute EBCT contactors for each session

9 *Impact of Empty-Bed Contact Time (EBCT)*

9 Impact of Empty-Bed Contact Time (EBCT)

During the January, April, and June sessions, as required by the ICR, two EBCTs were evaluated: 10 and 20 minutes. Due to a calculation error, the EBCTs evaluated during the Octobers session were 7.2 and 14.4 minutes. The breakthrough data generated were then used to evaluate the impact of EBCT on DBP precursor removal by GAC. To do so, the GAC breakthrough curves for each EBCT are plotted on a throughput basis, with units of bed volumes. This transformation normalizes for the difference in amount of EBCT between the two columns to be compared. The following equation is used to convert from run time to throughput in bed volumes:

$$\text{Throughput (bed volumes)} = \frac{\text{Run time}}{\text{EBCT}} \qquad (1)$$

For the January session, Figures 43 through 50 compare the 10 minute and 20 minute EBCT contactor performance for the breakthrough of TOC, UV_{254}, SDS-THM4, SDS-HAA5, SDS-HAA6, SDS-HAA9, SDS-TOX, and SDS-CLD. The same data are presented for the April, June, and October sessions in Figures 51 through 74. In general, all sessions showed that the 20 minute EBCT contactors outperformed the 10 minute EBCT contactors on a throughput basis, as seen by a shift to the right in the breakthrough curve. The 14.4 minute EBCT contactor outperformed the 7.2 minute EBCT contactor on a throughput basis. Throughput to an effluent TOC concentration of 1.0 mg/L was 28, 21, 44, and 31 percent longer during the January, April, June, and October sessions, respectively, for the 20 (or 14.4) minute EBCT contactor over the 10 (or 7.2) minute EBCT contactor.

For all parameters analyzed, the throughput in bed volumes for both EBCTs to various run time criteria are summarized in Tables 32 through 35. These tables also include throughput based on blended effluent of multiple contactors, as explained in Section 10 below.

The throughput comparison data are summarized in graphical format in Figures 75 through 78 for the January session. On a throughput basis and for all run time criteria, the 20 minute EBCT contactor outperformed the 10 minute EBCT contactor. The same data are presented for the April, June, and October sessions in Figures 79 through 90. During the October session, the 14.4 minute EBCT effluent SDS-THM4 data peaked slightly at the end of the run, yielding an effluent concentration higher than the 7.2 minute EBCT contactor at the same throughput. This affected the throughput to the placeholder for Stage 2 THM4 MCL, where the throughput of the 14.4 minute EBCT contactor was calculated as 18 percent lower than that of the 7.2 minute EBCT contactor. However, a visual inspection of Figure 69 shows that overall, the 14.4 minute EBCT contactor outperformed the 7.2 minute EBCT contactor. Also shown in the figures is the throughput based on blended effluent of multiple contactors, which is explained below in Section 10.

Parameter	Units	Influent concentration	Value	Throughput (BV) at given EBCT (min)				Throughput change from 10 to 20 min EBCT (%)	
				10		20			
				Contactor configuration					
				Single	Multiple	Single	Multiple	Single contactor	Multiple contactors
TOC	(mg/L)	2.1	2.0	*	*	*	*		
			1.0	16,540	37,990	21,120	44,520	28	17
			1.0†	17,560	40,620	22,100	47,290	26	16
UV-254	(1/cm)	0.030	0.040	*	*	*	*		
			0.020	*	*	*	*		
			0.015†	22,660	51,670	*	59,200		15
SDS-THM4	(µg/L)	22	80	*	*	*	*		
			64	*	*	*	*		
			32	*	*	*	*		
SDS-HAA5	(µg/L)	16	48	*	*	*	*		
			24	*	*	*	*		
SDS-HAA6	(µg/L)	18	48	*	*	*	*		
			24	*	*	*	*		
SDS-HAA9	(µg/L)	20	48	*	*	*	*		
			24	*	*	*	*		
SDS-TOX	(µg Cl^-/L)	121	120	*	*	*	*		
			70	26,570	66,470	*	*		

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, calculated values are left blank.

Table 32 Summary of throughput to selected GAC effluent criteria during session 1, January

Parameter	Units	Influent concentration	Value	Throughput (BV) at given EBCT (min)				Throughput change from 10 to 20 min EBCT (%)	
				10		20			
				Contactor configuration					
				Single	Multiple	Single	Multiple	Single contactor	Multiple contactors
TOC	(mg/L)	1.5	2.0	*	*	*	*		
			1.0	19,810	52,910	23,910	64,600	21	22
			0.8†	13,450	30,310	15,370	36,530	14	21
UV-254	(1/cm)	0.030	0.040	*	*	*	*		
			0.020	*	*	*	*		
			0.015†	20,050	41,780	24,120	49,970	20	20
SDS-THM4	(µg/L)	32	80	*	*	*	*		
			64	*	*	*	*		
			32	*	*	*	*		
SDS-HAA5	(µg/L)	16	48	*	*	*	*		
			24	*	*	*	*		
SDS-HAA6	(µg/L)	17	48	*	*	*	*		
			24	*	*	*	*		
SDS-HAA9	(µg/L)	19	48	*	*	*	*		
			24	*	*	*	*		
SDS-TOX	(µg Cl^-/L)	123	120	*	*	*	*		
			70	*	54,500	*	*		

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, calculated values are left blank.

Table 33 Summary of throughput to selected GAC effluent criteria during session 2, April

Parameter	Units	Influent concentration	Value	Throughput (BV) at given EBCT (min)				Throughput change from 10 to 20 min EBCT (%)	
				10		20			
				Contactor configuration					
				Single	Multiple	Single	Multiple	Single contactor	Multiple contactors
TOC	(mg/L)	1.9	2.0	*	*	*	*		
			1.0	13,320	32,990	19,190	41,850	44	27
			0.9†	11,590	29,550	16,630	37,830	43	28
UV-254	(1/cm)	0.038	0.040	*	*	*	*		
			0.020	20,720	50,560	*	60,540		20
			0.019†	18,760	46,350	25,320	55,560	35	20
SDS-THM4	(µg/L)	43	80	*	*	*	*		
			64	*	*	*	*		
			32	27,060	*	*	*		
SDS-HAA5	(µg/L)	22	48	*	*	*	*		
			24	*	*	*	*		
SDS-HAA6	(µg/L)	24	48	*	*	*	*		
			24	*	*	*	*		
SDS-HAA9	(µg/L)	27	48	*	*	*	*		
			24	*	*	*	*		
SDS-TOX	(µg Cl^-/L)	174	120	*	*	*	*		
			70	14,310	32,700	20,070	39,880	40	22

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, calculated values are left blank.

Table 34 Summary of throughput to selected GAC effluent criteria during session 3, June

Parameter	Units	Influent concen-tration	Value	Throughput (BV) at given EBCT (min)				Throughput change from 7.2 to 14.4 min EBCT (%)	
				7.2		14.4			
				Contactor configuration				Single contactor	Multiple contactors
				Single	Multiple	Single	Multiple		
TOC	(mg/L)	2.0	2.0	*	*	*	*		
			1.0	12,030	30,470	15,720	34,730	31	14
			1.0†	12,080	30,790	15,760	35,000	30	14
UV-254	(1/cm)	0.032	0.040	*	*	*	*		
			0.020	27,650	70,700	*	*		
			0.016†	18,900	43,680	22,820	51,250	21	17
SDS-THM4	(µg/L)	42	80	*	*	*	*		
			64	*	*	*	*		
			32	31,010	*	25,280	*	-18	
SDS-HAA5	(µg/L)	23	48	*	*	*	*		
			24	*	*	*	*		
SDS-HAA6	(µg/L)	26	48	*	*	*	*		
			24	*	*	*	*		
SDS-HAA9	(µg/L)	29	48	*	*	*	*		
			24	*	*	*	*		
SDS-TOX	(µg Cl^-/L)	156	120	*	*	*	*		
			70	14,370	34,710	19,390	41,400	35	19

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time, calculated values are left blank.

Table 35 Summary of throughput to selected GAC effluent criteria during session 4, October

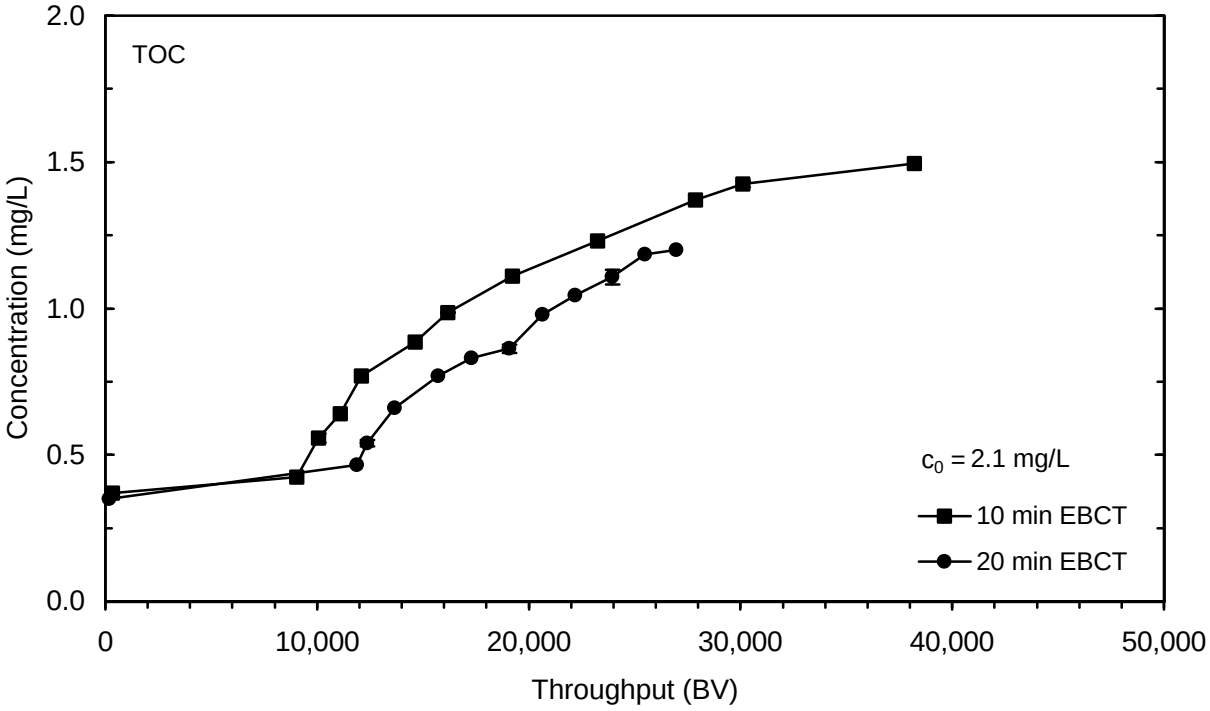


Figure 43 TOC breakthrough for 10 and 20 minute EBCT contactors during session 1 (January), plotted as throughput in bed volumes treated

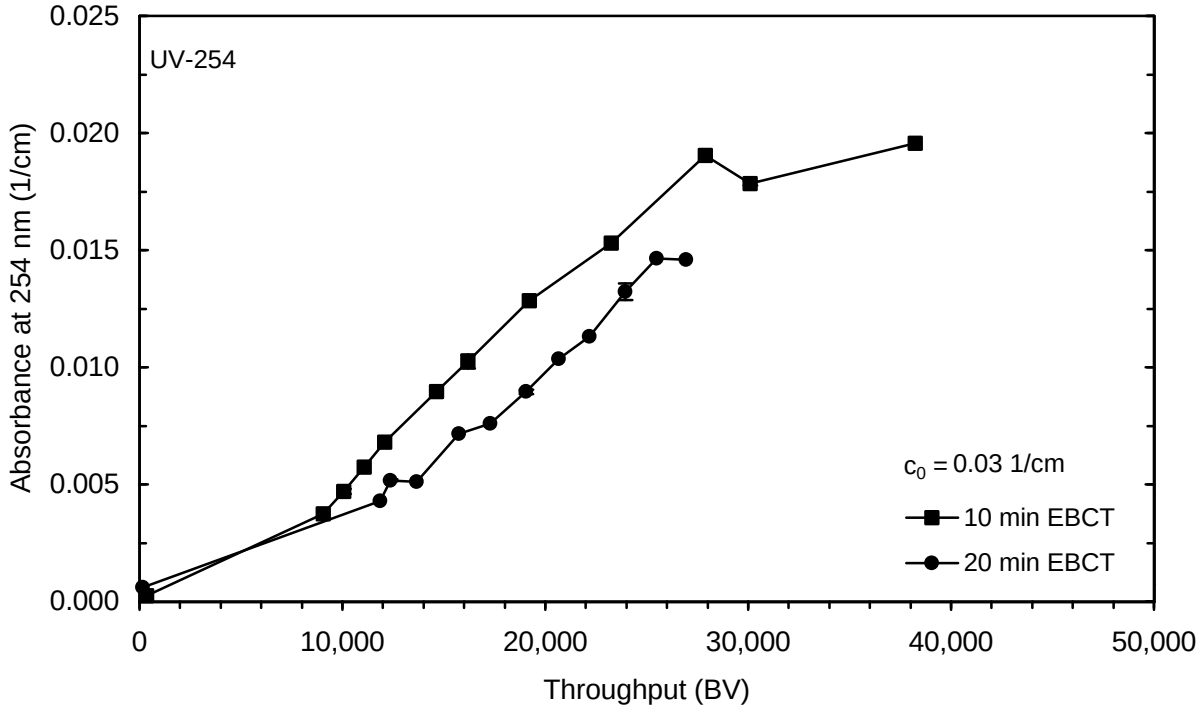


Figure 44 UV-254 breakthrough for 10 and 20 minute EBCT contactors during session 1 (January), plotted as throughput in bed volumes treated

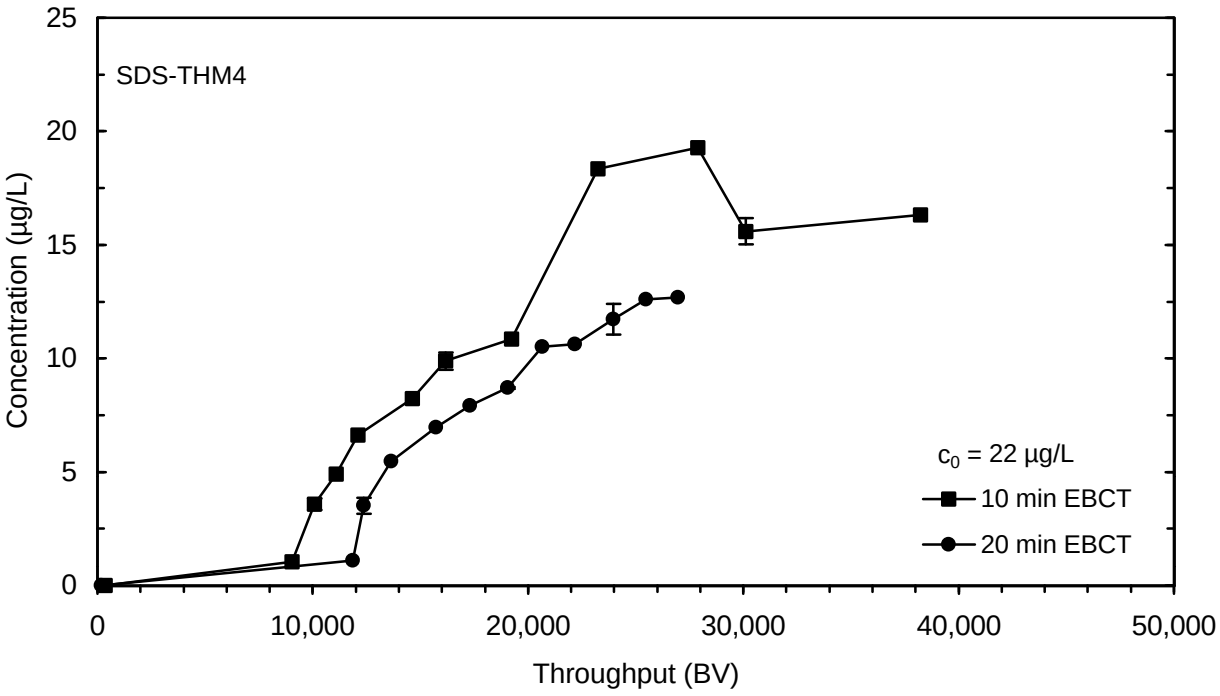


Figure 45 SDS-THM4 breakthrough for 10 and 20 minute EBCT contactors during session 1 (January), plotted as throughput in bed volumes treated

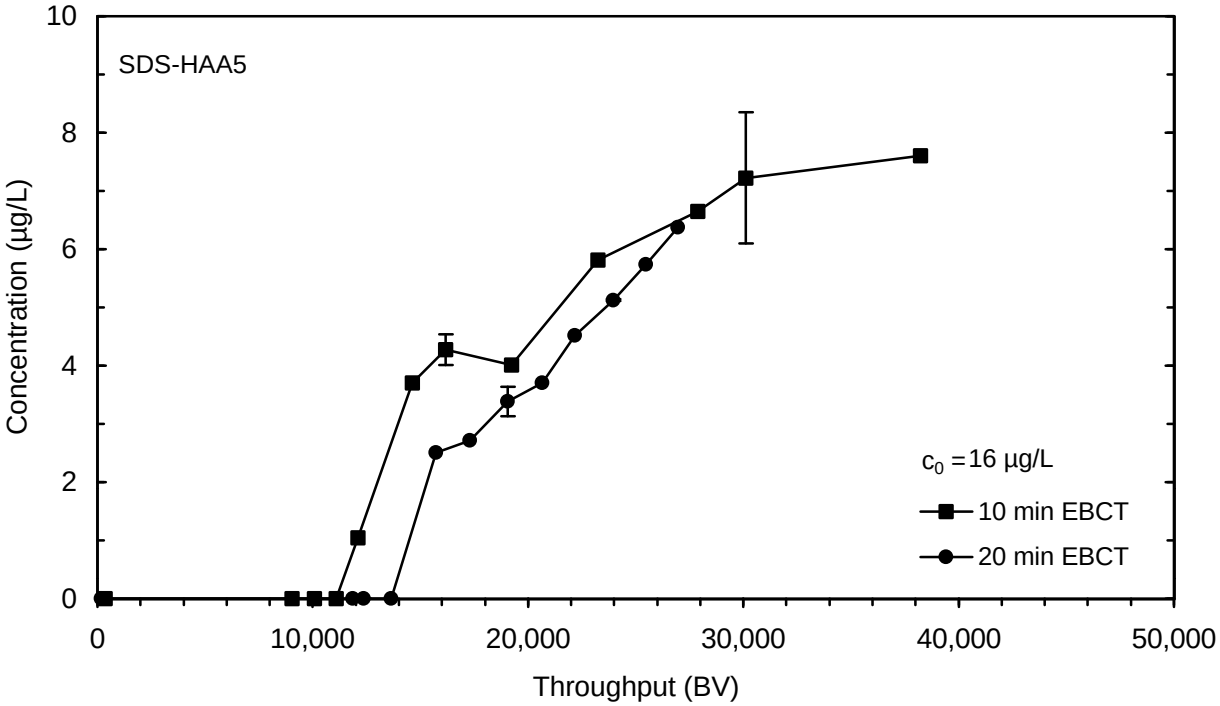


Figure 46 SDS-HAA5 breakthrough for 10 and 20 minute EBCT contactors during session 1 (January), plotted as throughput in bed volumes treated

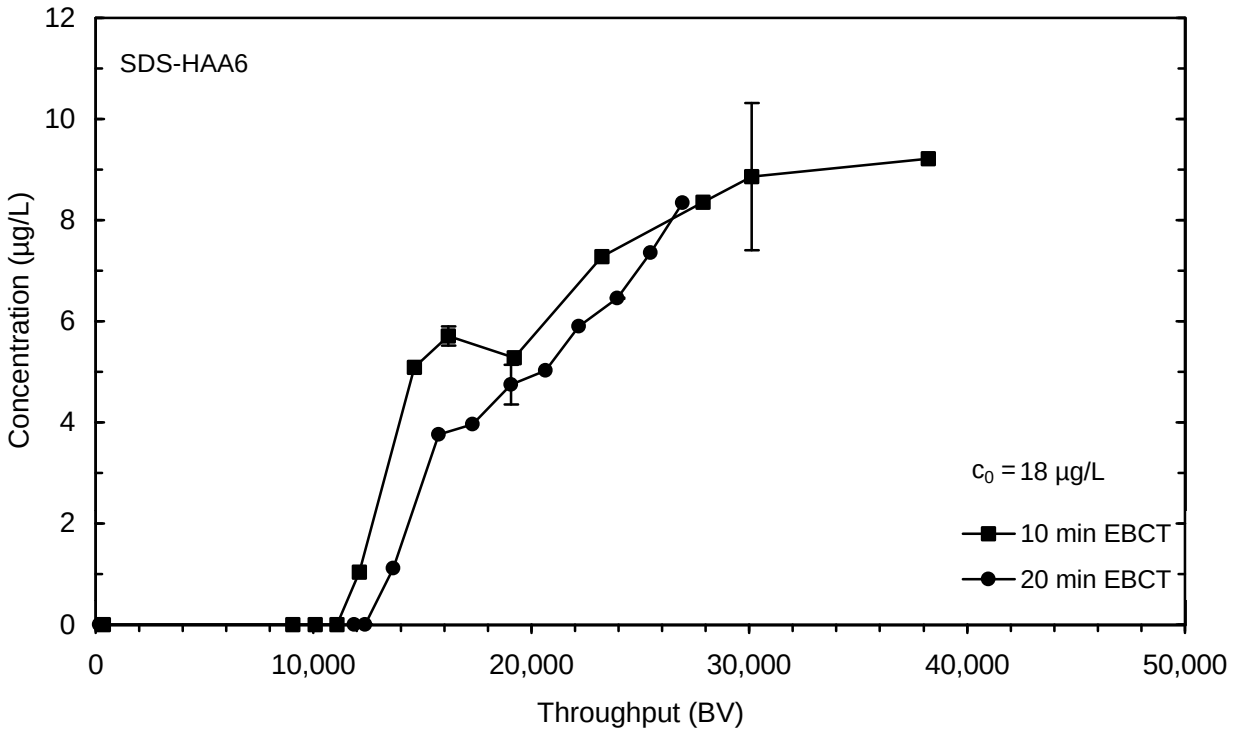


Figure 47 SDS-HAA6 breakthrough for 10 and 20 minute EBCT contactors during session 1 (January), plotted as throughput in bed volumes treated

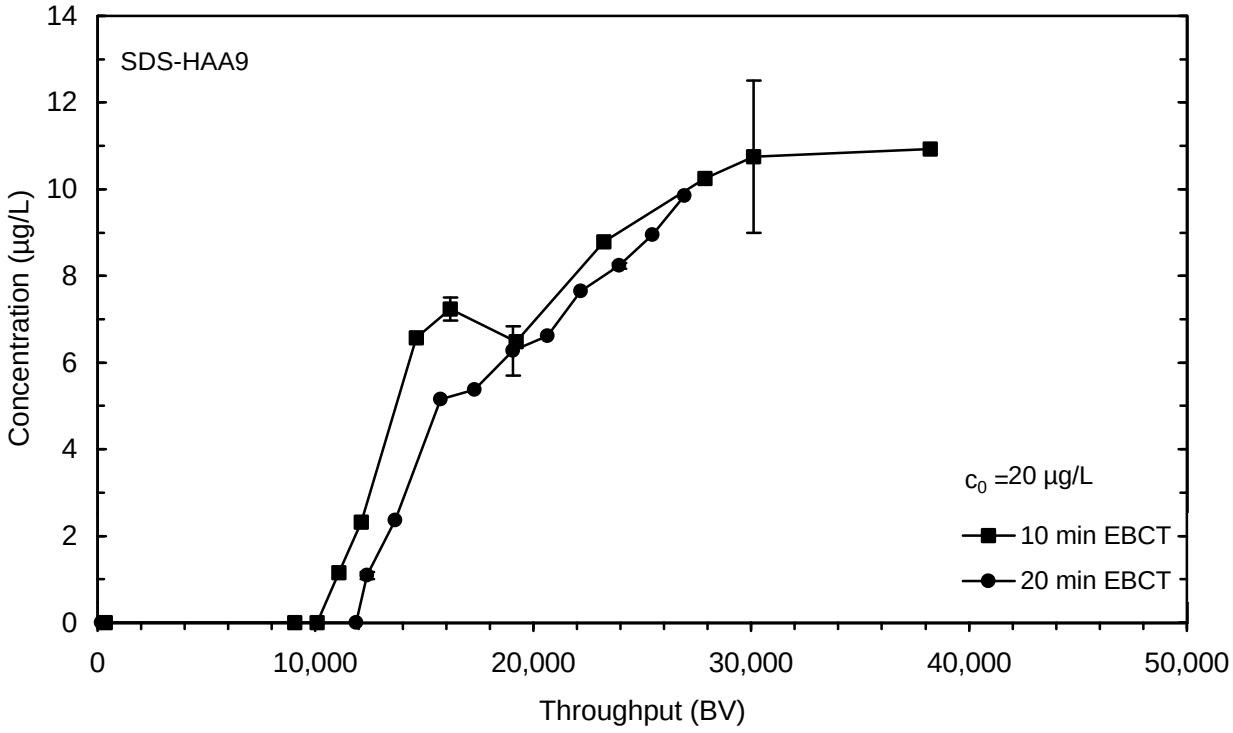


Figure 48 SDS-HAA9 breakthrough for 10 and 20 minute EBCT contactors during session 1 (January), plotted as throughput in bed volumes treated

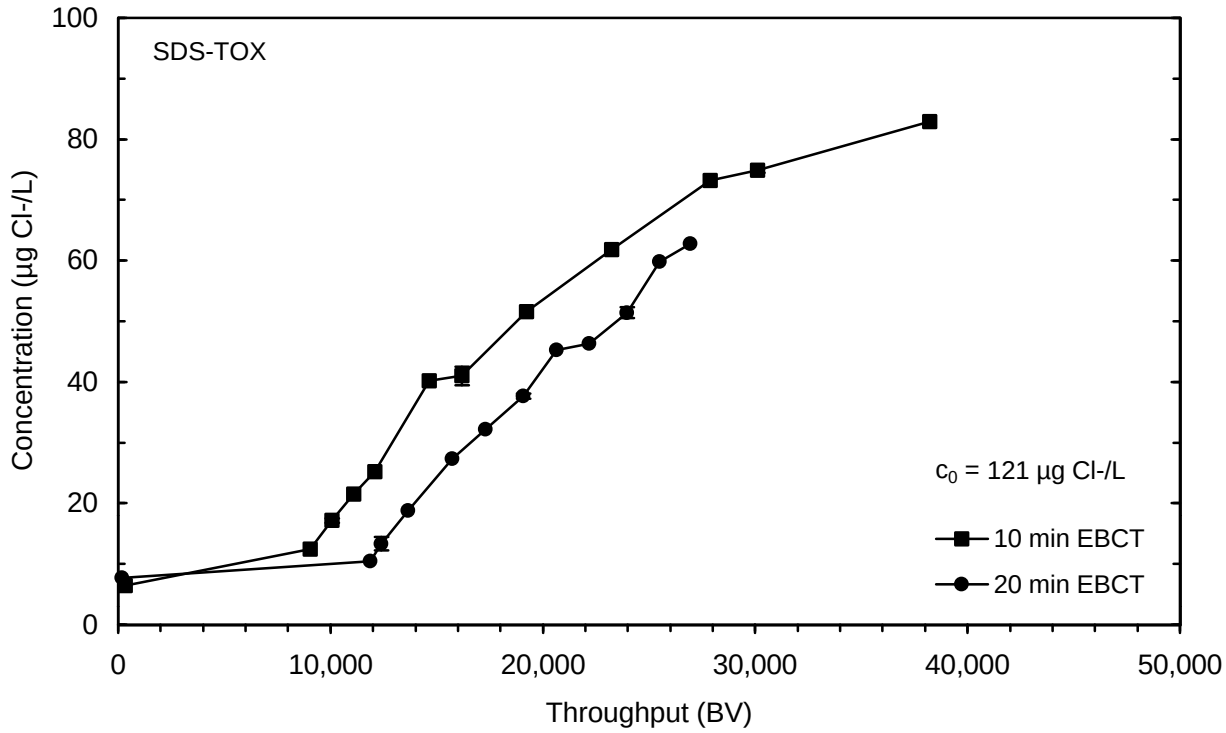


Figure 49 SDS-TOX breakthrough for 10 and 20 minute EBCT contactors during session 1 (January), plotted as throughput in bed volumes treated

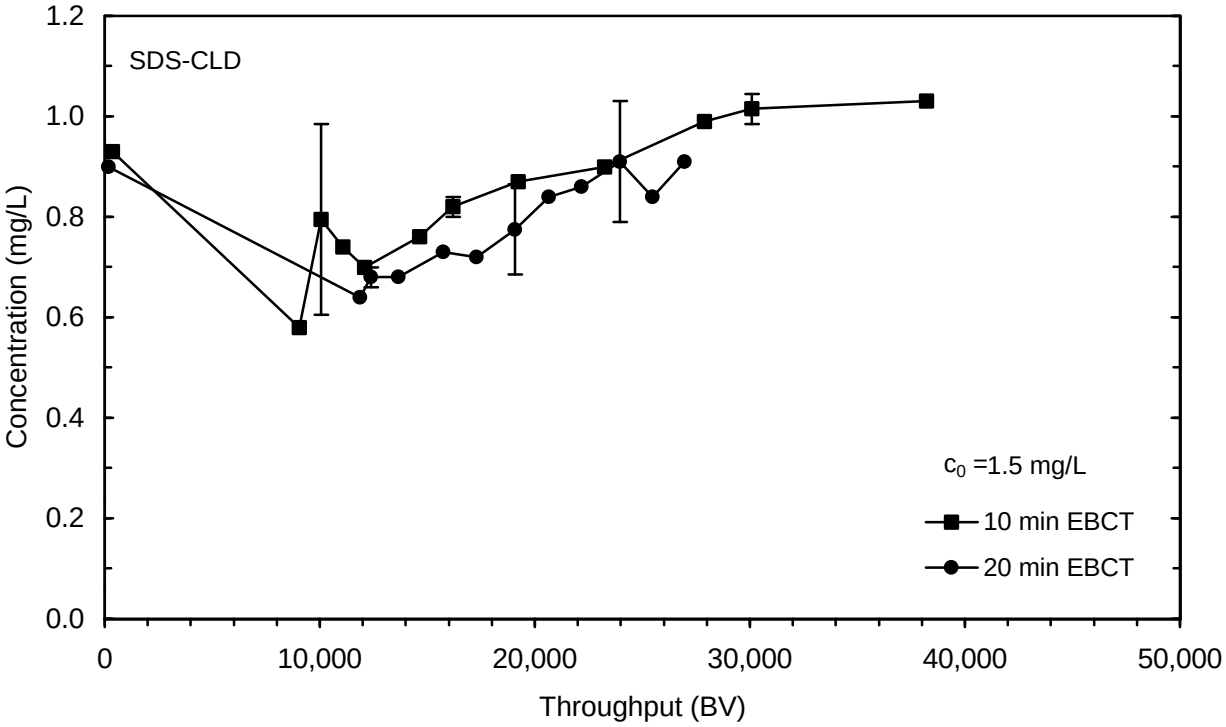


Figure 50 SDS-CLD breakthrough for 10 and 20 minute EBCT contactors during session 1 (January), plotted as throughput in bed volumes treated

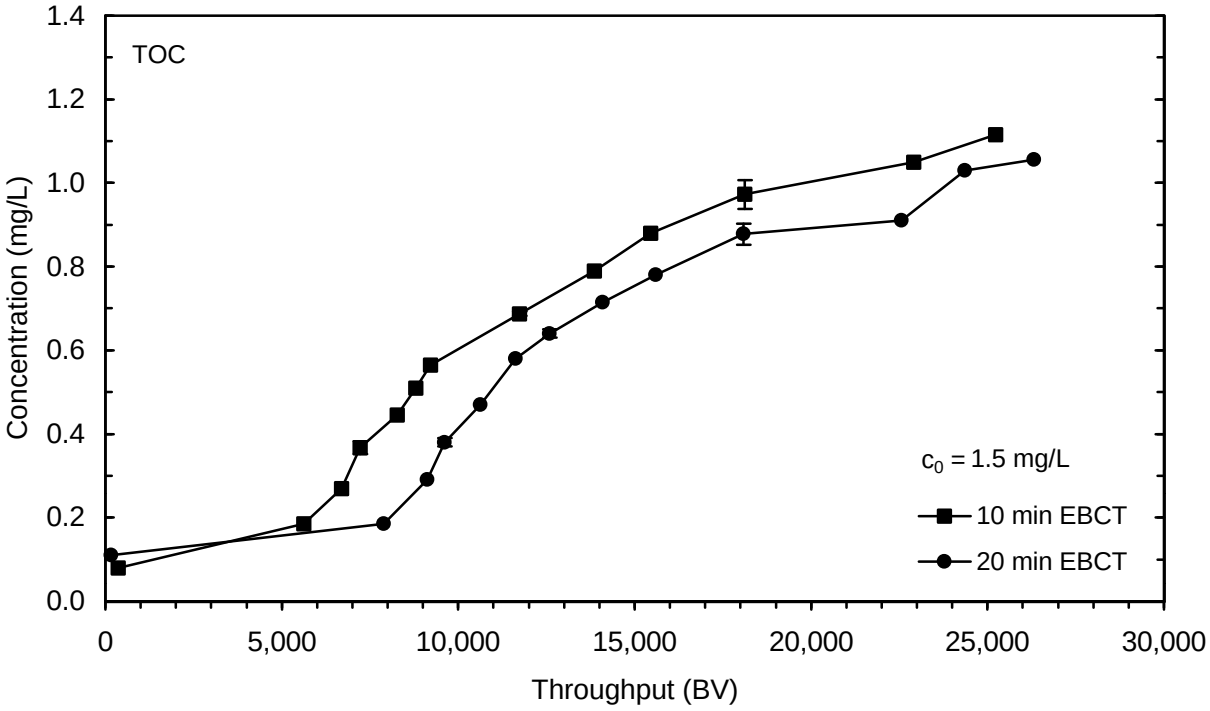


Figure 51 TOC breakthrough for 10 and 20 minute EBCT contactors during session 2 (April), plotted as throughput in bed volumes treated

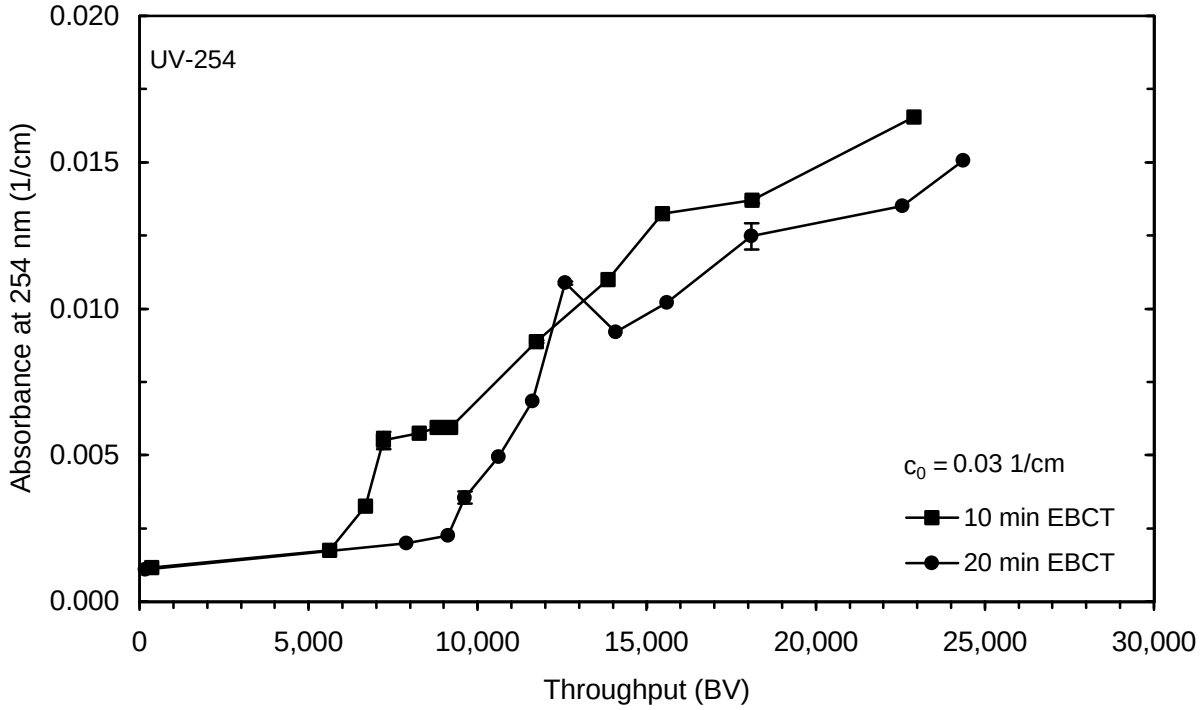


Figure 52 UV-254 breakthrough for 10 and 20 minute EBCT contactors during session 2 (April), plotted as throughput in bed volumes treated

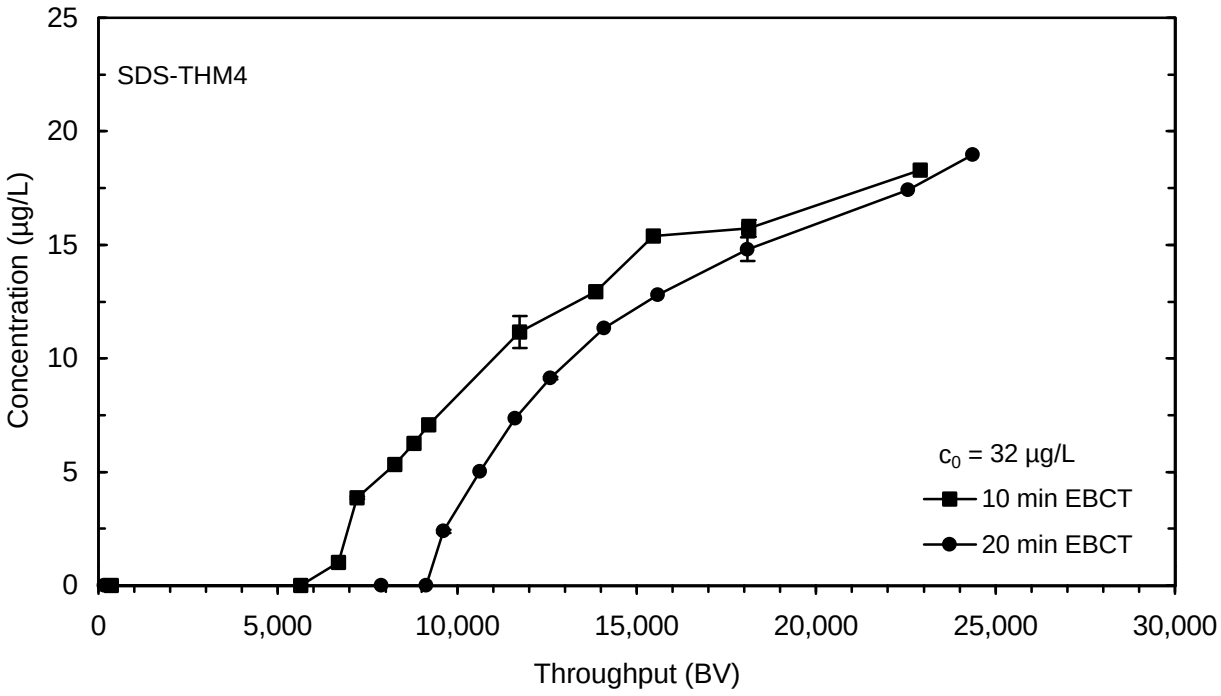


Figure 53 SDS-THM4 breakthrough for 10 and 20 minute EBCT contactors during session 2 (April), plotted as throughput in bed volumes treated

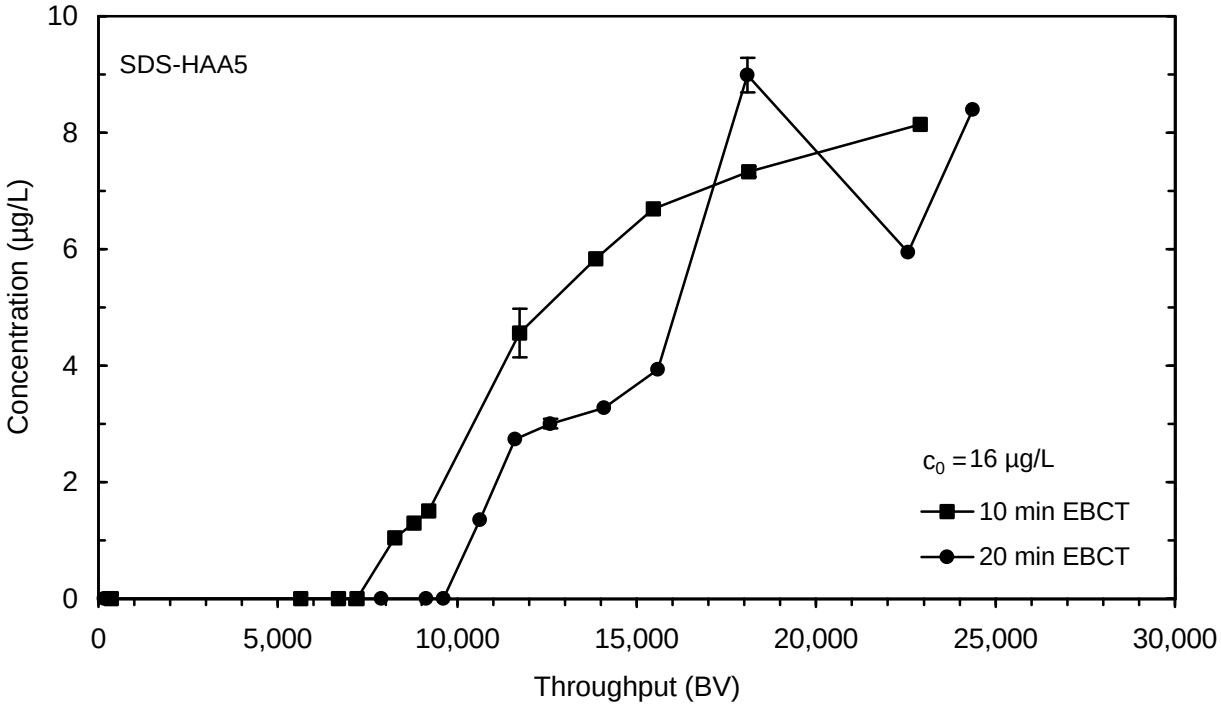


Figure 54 SDS-HAA5 breakthrough for 10 and 20 minute EBCT contactors during session 2 (April), plotted as throughput in bed volumes treated

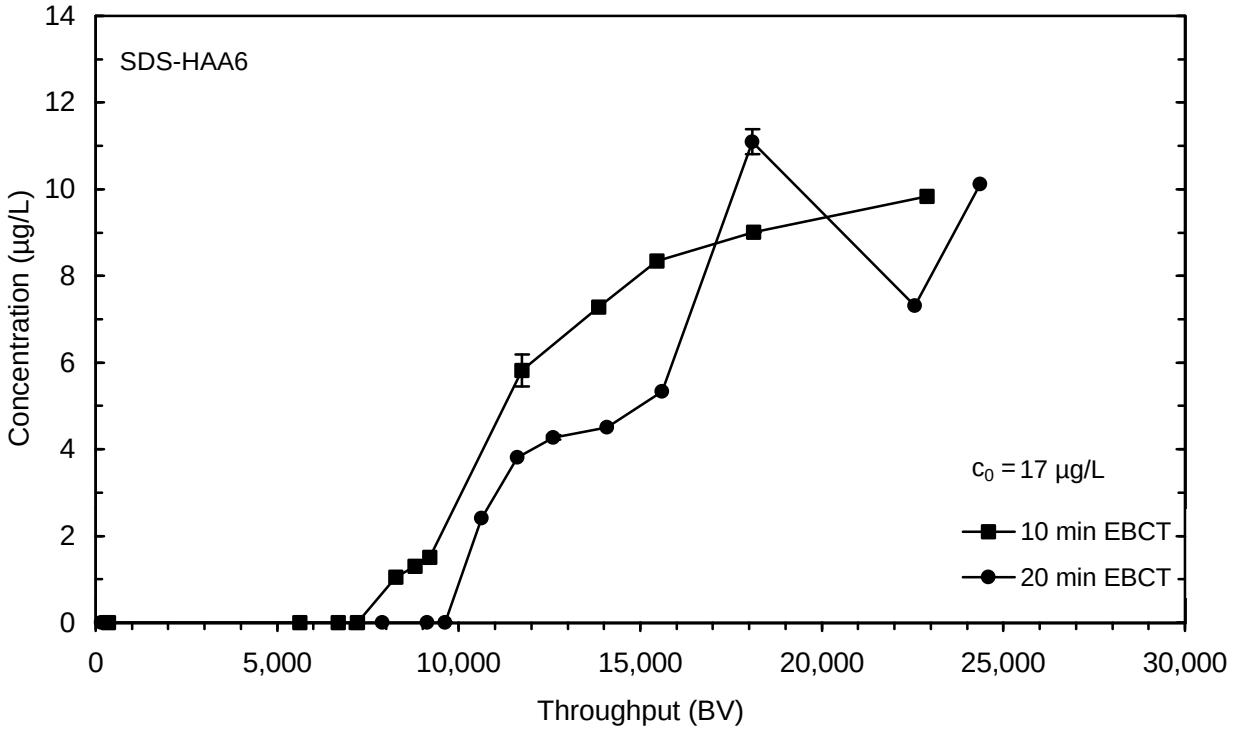


Figure 55 SDS-HAA6 breakthrough for 10 and 20 minute EBCT contactors during session 2 (April), plotted as throughput in bed volumes treated

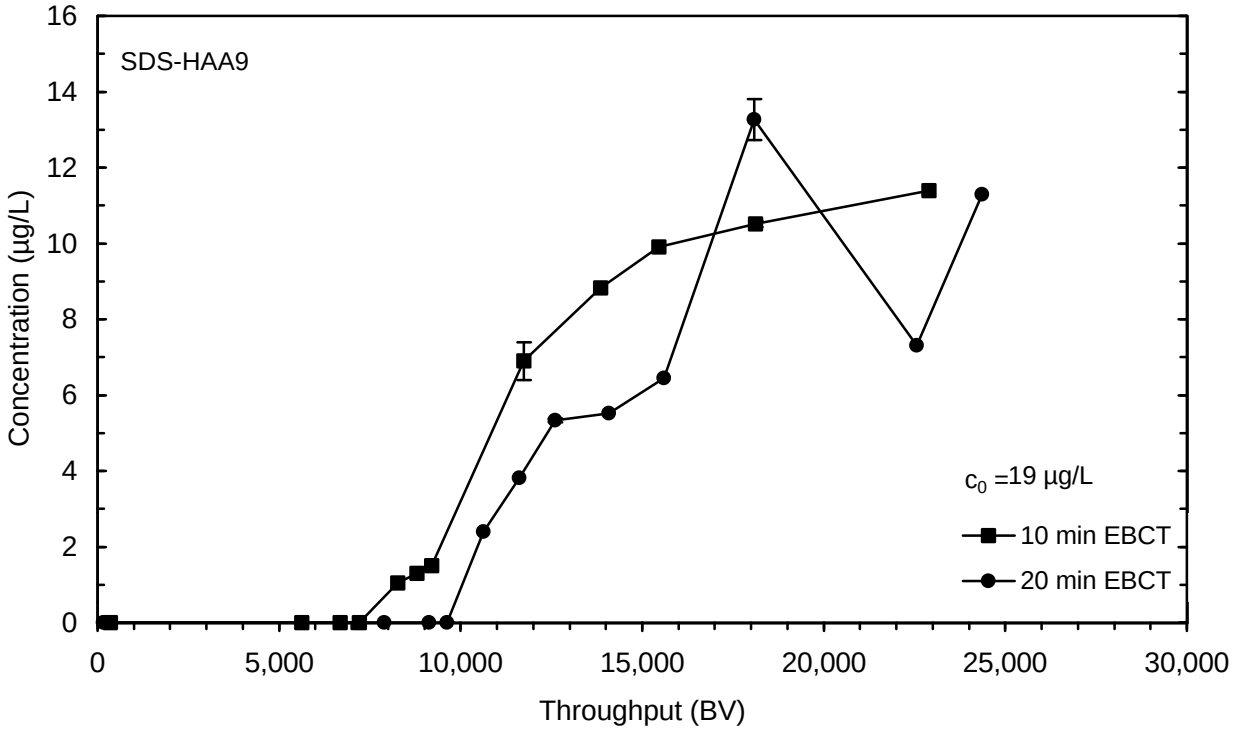


Figure 56 SDS-HAA9 breakthrough for 10 and 20 minute EBCT contactors during session 2 (April), plotted as throughput in bed volumes treated

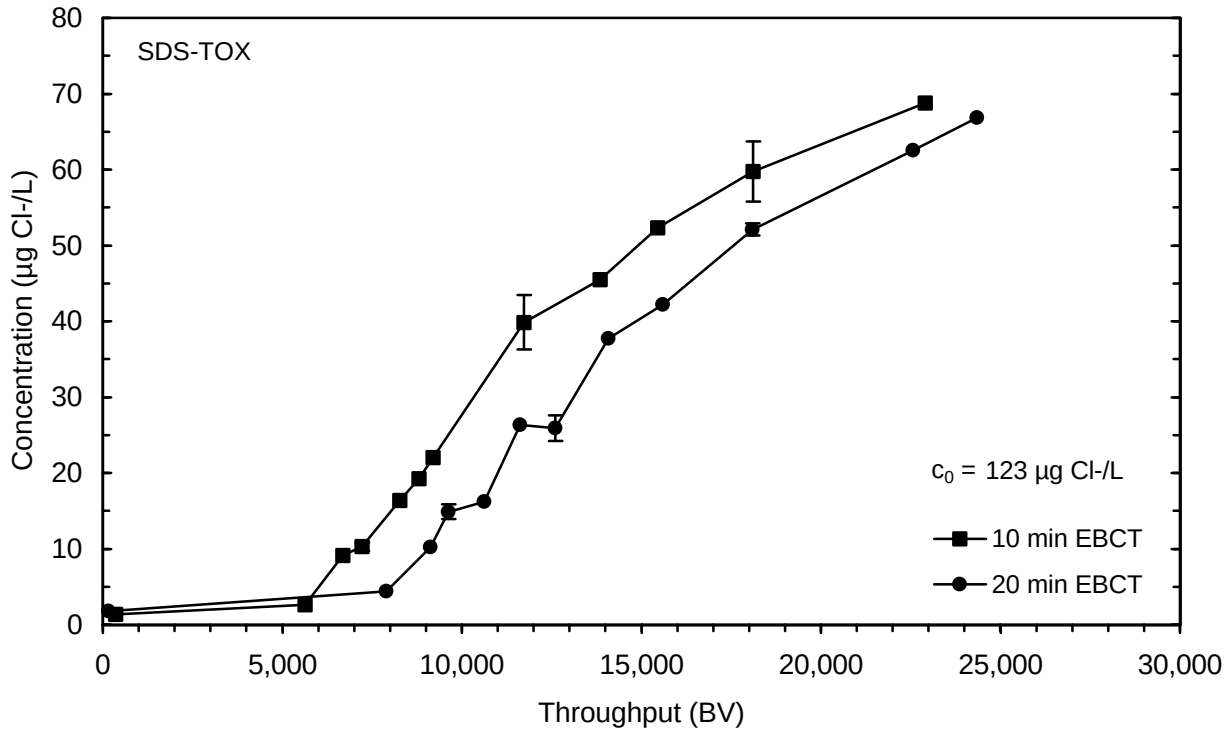


Figure 57 SDS-TOX breakthrough for 10 and 20 minute EBCT contactors during session 2 (April), plotted as throughput in bed volumes treated

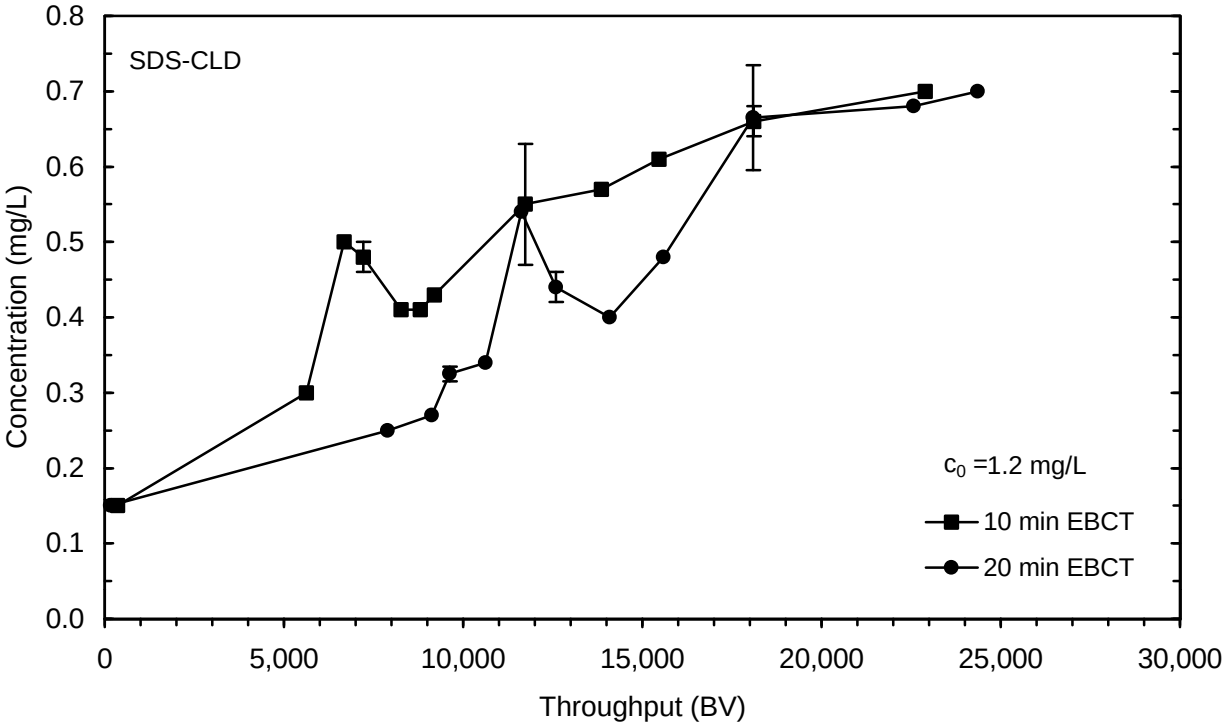


Figure 58 SDS-CLD breakthrough for 10 and 20 minute EBCT contactors during session 2 (April), plotted as throughput in bed volumes treated

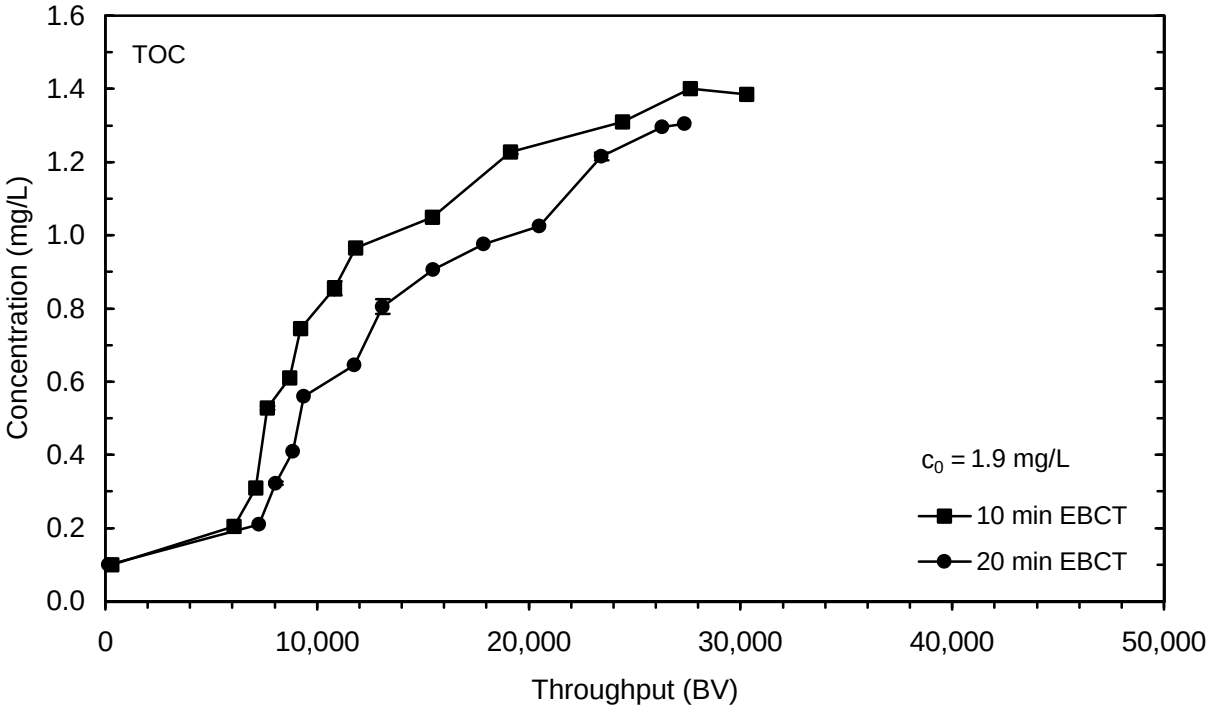


Figure 59 TOC breakthrough for 10 and 20 minute EBCT contactors during session 3 (June), plotted as throughput in bed volumes treated

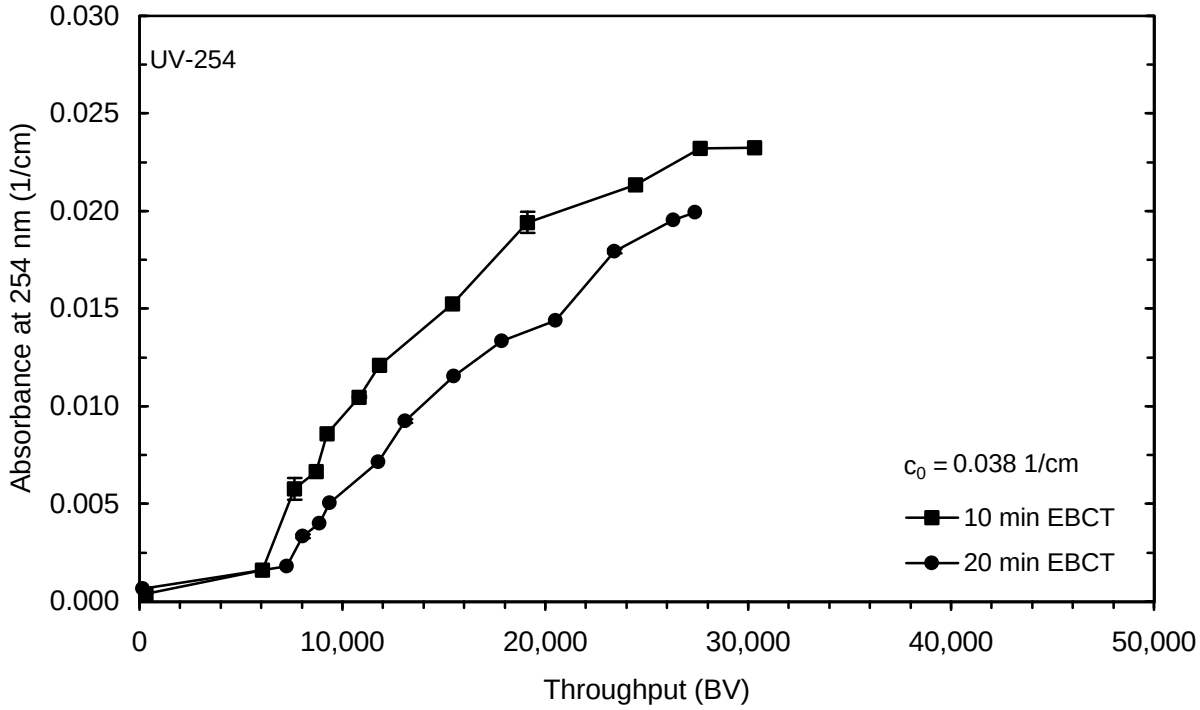


Figure 60 UV-254 breakthrough for 10 and 20 minute EBCT contactors during session 3 (June), plotted as throughput in bed volumes treated

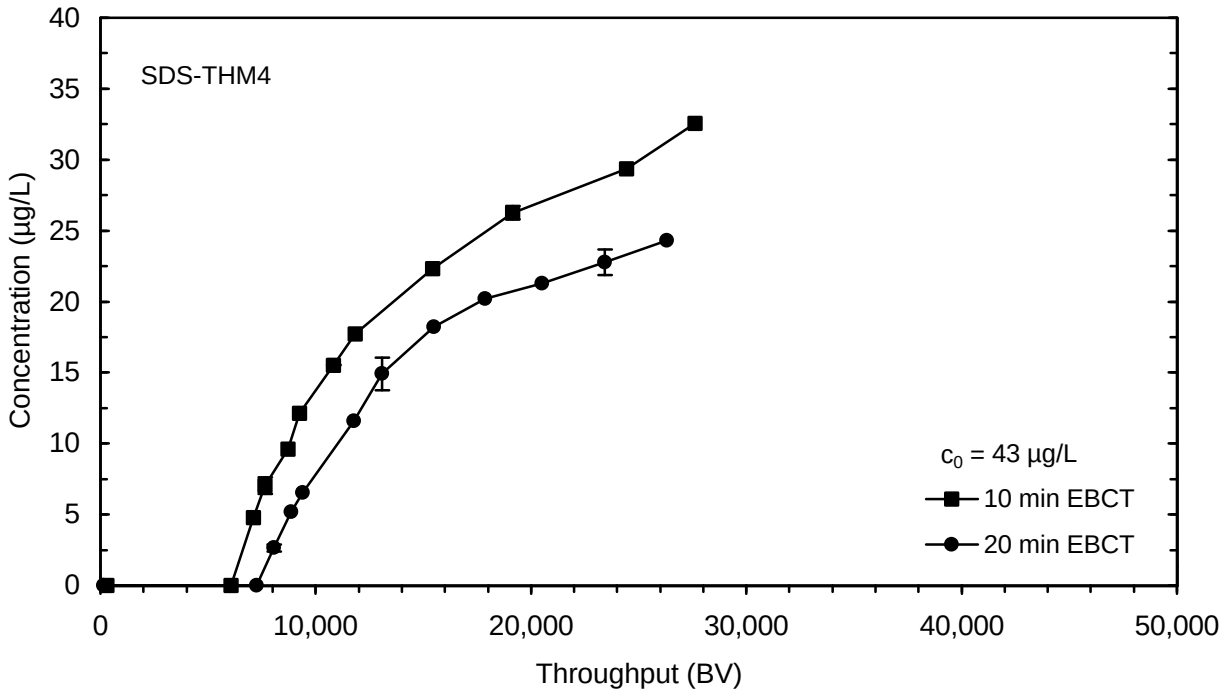


Figure 61 SDS-THM4 breakthrough for 10 and 20 minute EBCT contactors during session 3 (June), plotted as throughput in bed volumes treated

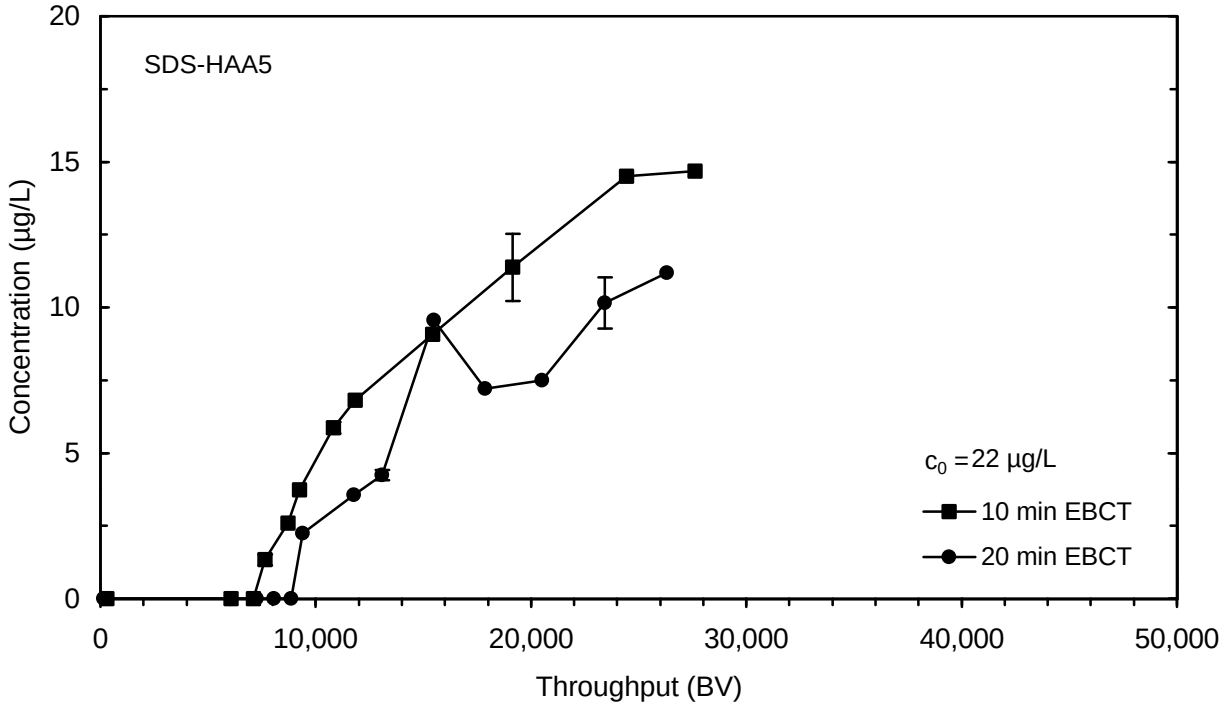


Figure 62 SDS-HAA5 breakthrough for 10 and 20 minute EBCT contactors during session 3 (June), plotted as throughput in bed volumes treated

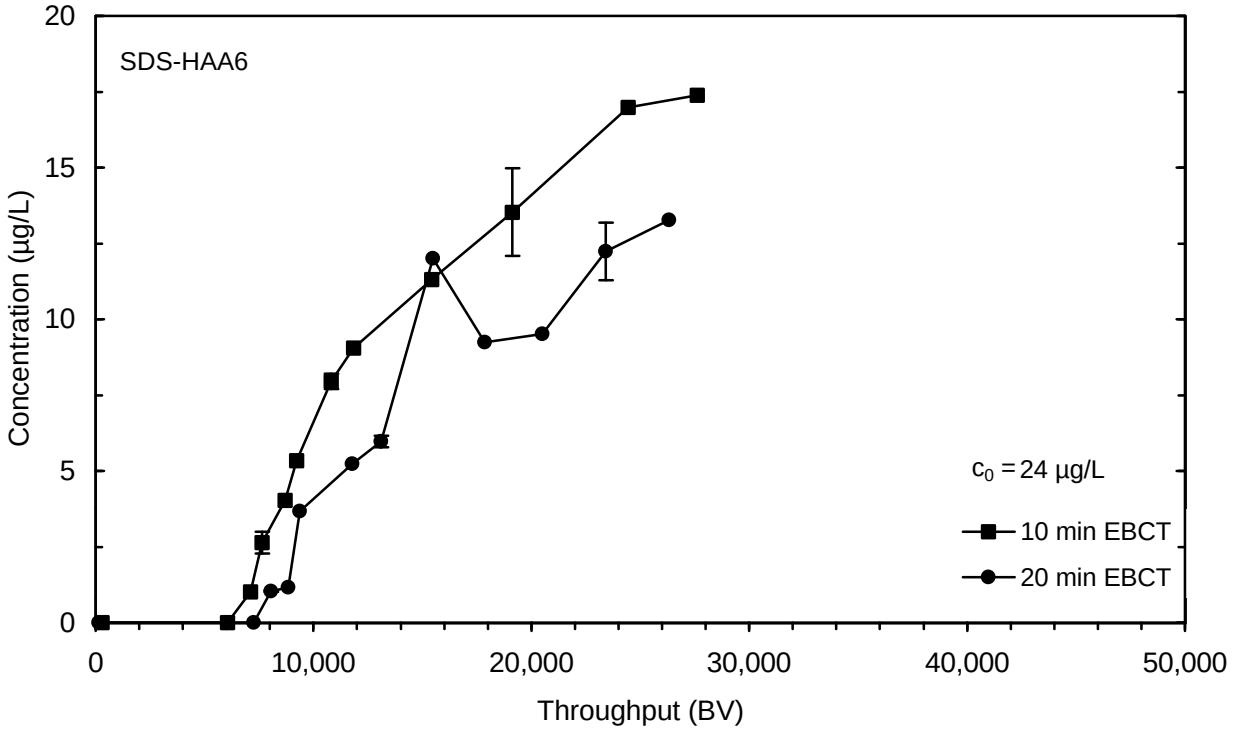


Figure 63 SDS-HAA6 breakthrough for 10 and 20 minute EBCT contactors during session 3 (June), plotted as throughput in bed volumes treated

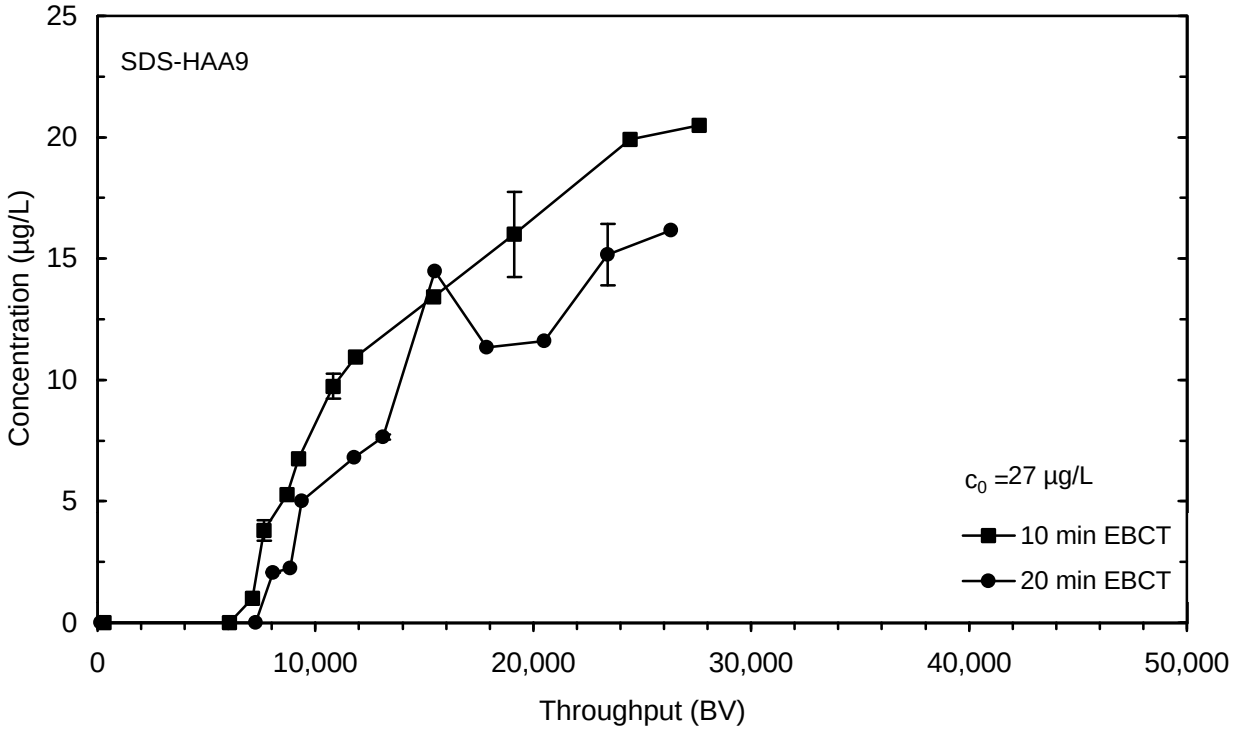


Figure 64 SDS-HAA9 breakthrough for 10 and 20 minute EBCT contactors during session 3 (June), plotted as throughput in bed volumes treated

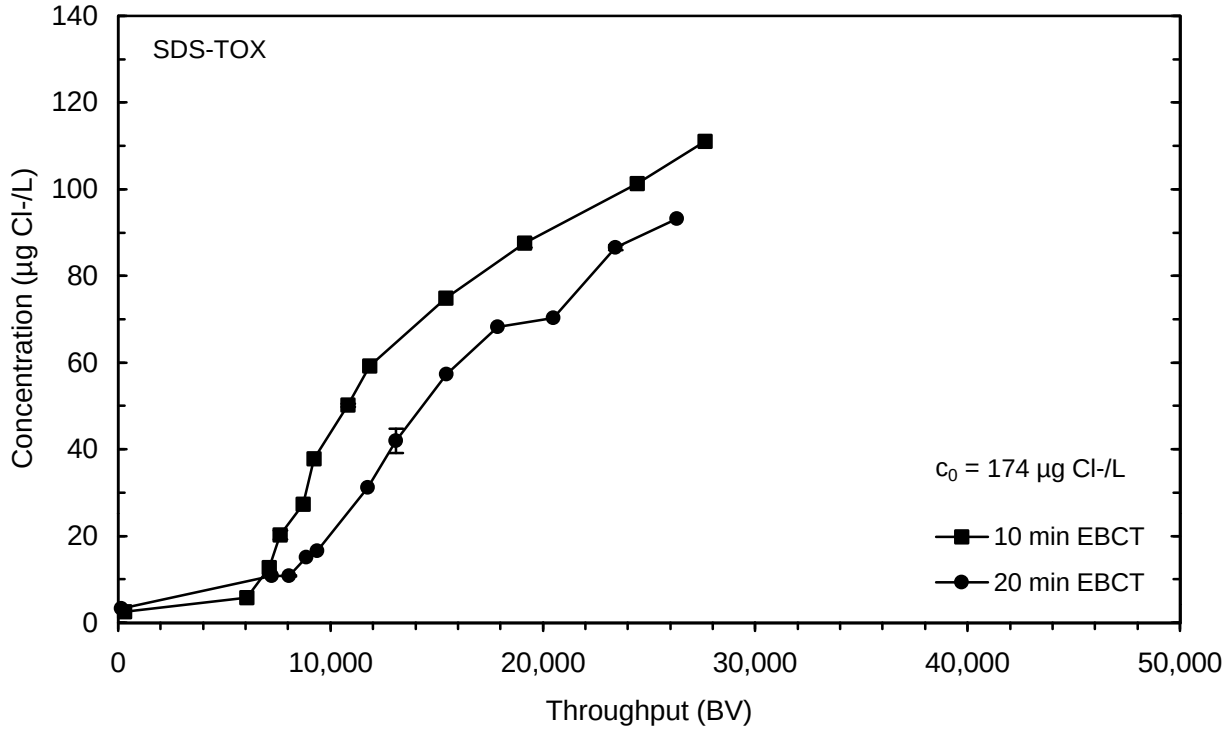


Figure 65 SDS-TOX breakthrough for 10 and 20 minute EBCT contactors during session 3 (June), plotted as throughput in bed volumes treated

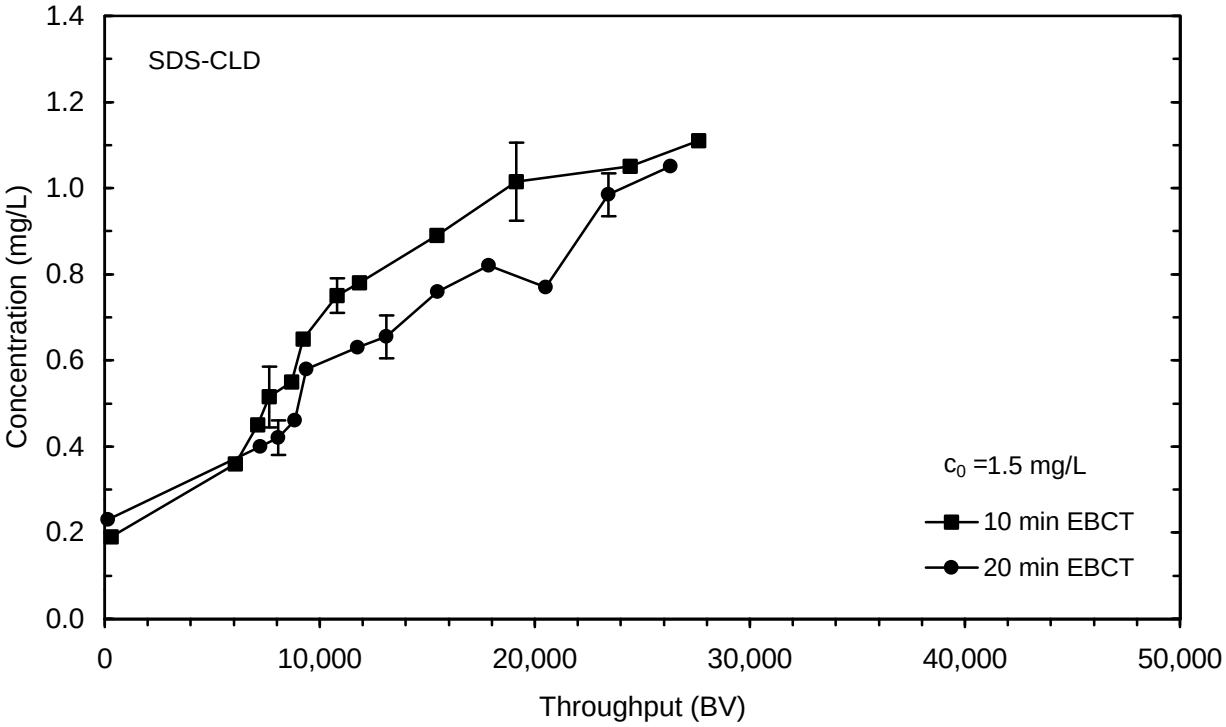


Figure 66 SDS-CLD breakthrough for 10 and 20 minute EBCT contactors during session 3 (June), plotted as throughput in bed volumes treated

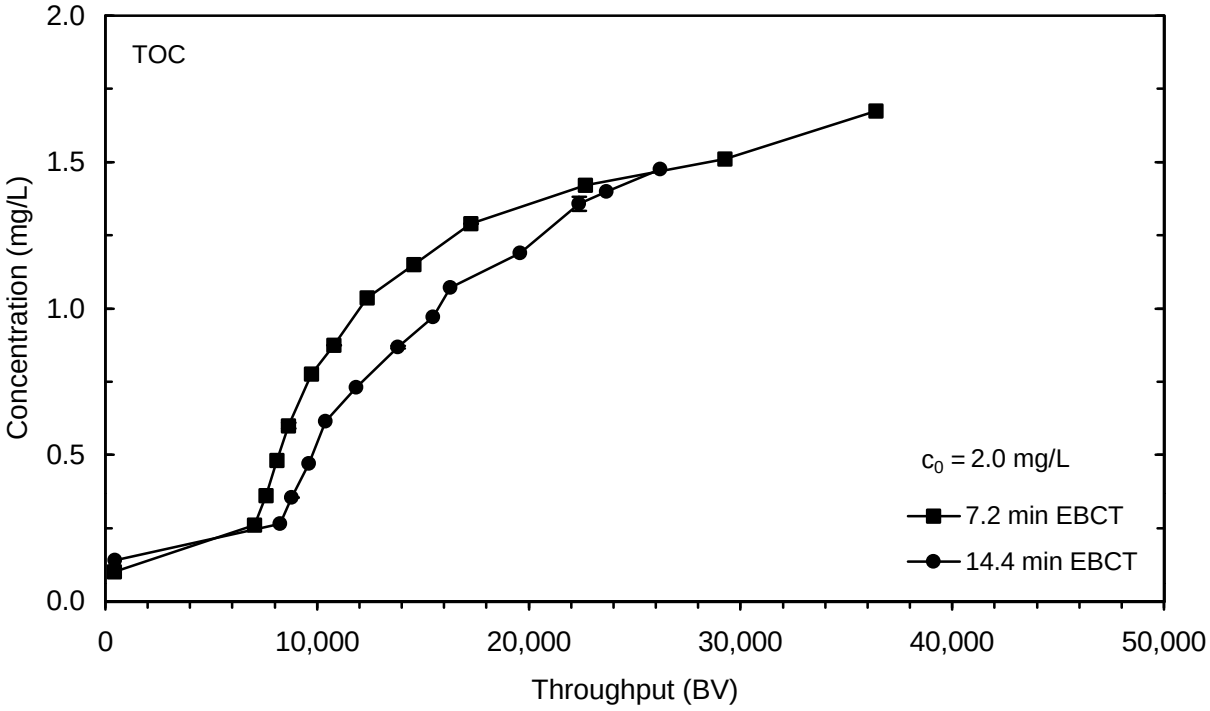


Figure 67 TOC breakthrough for 7.2 and 14.4 minute EBCT contactors during session 4 (October), plotted as throughput in bed volumes treated

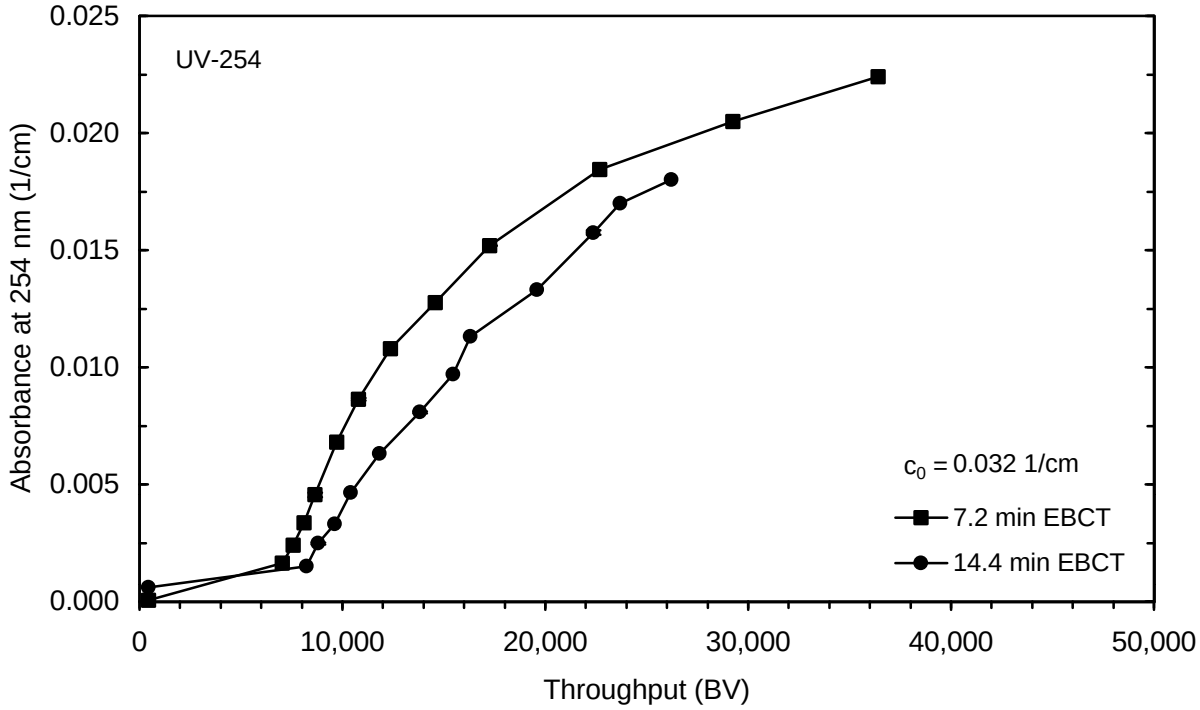


Figure 68 UV-254 breakthrough for 7.2 and 14.4 minute EBCT contactors during session 4 (October), plotted as throughput in bed volumes treated

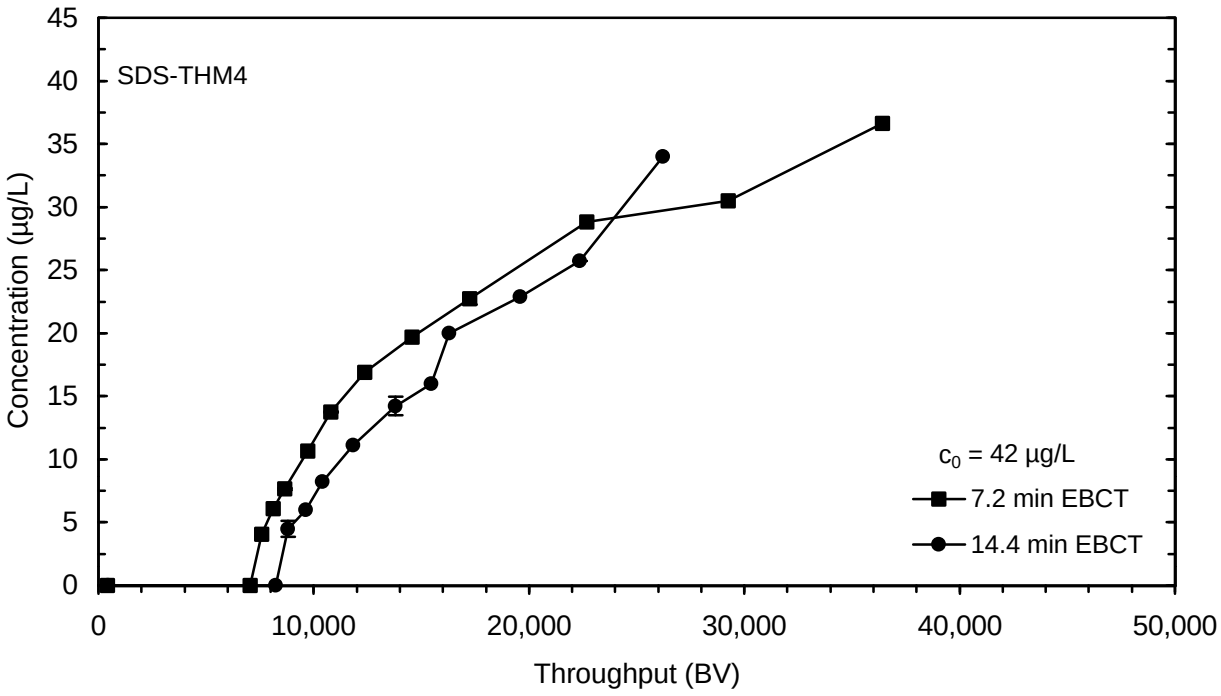


Figure 69 SDS-THM4 breakthrough for 7.2 and 14.4 minute EBCT contactors during session 4 (October), plotted as throughput in bed volumes treated

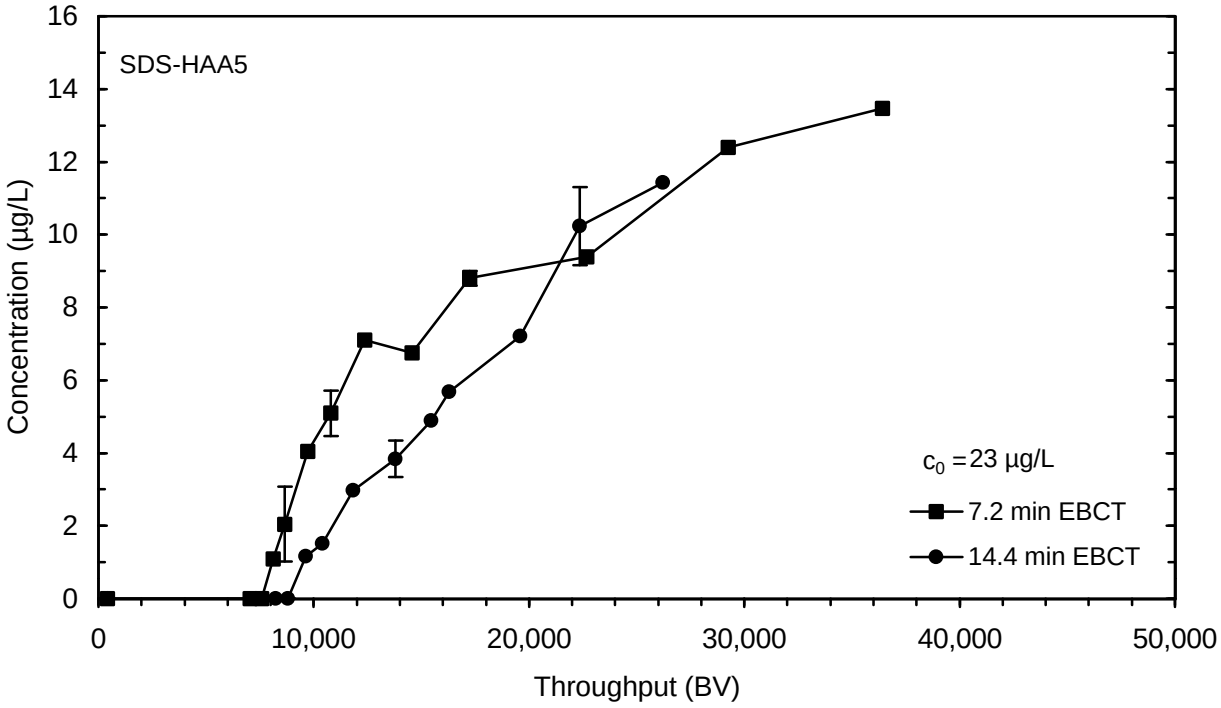


Figure 70 SDS-HAA5 breakthrough for 7.2 and 14.4 minute EBCT contactors during session 4 (October), plotted as throughput in bed volumes treated

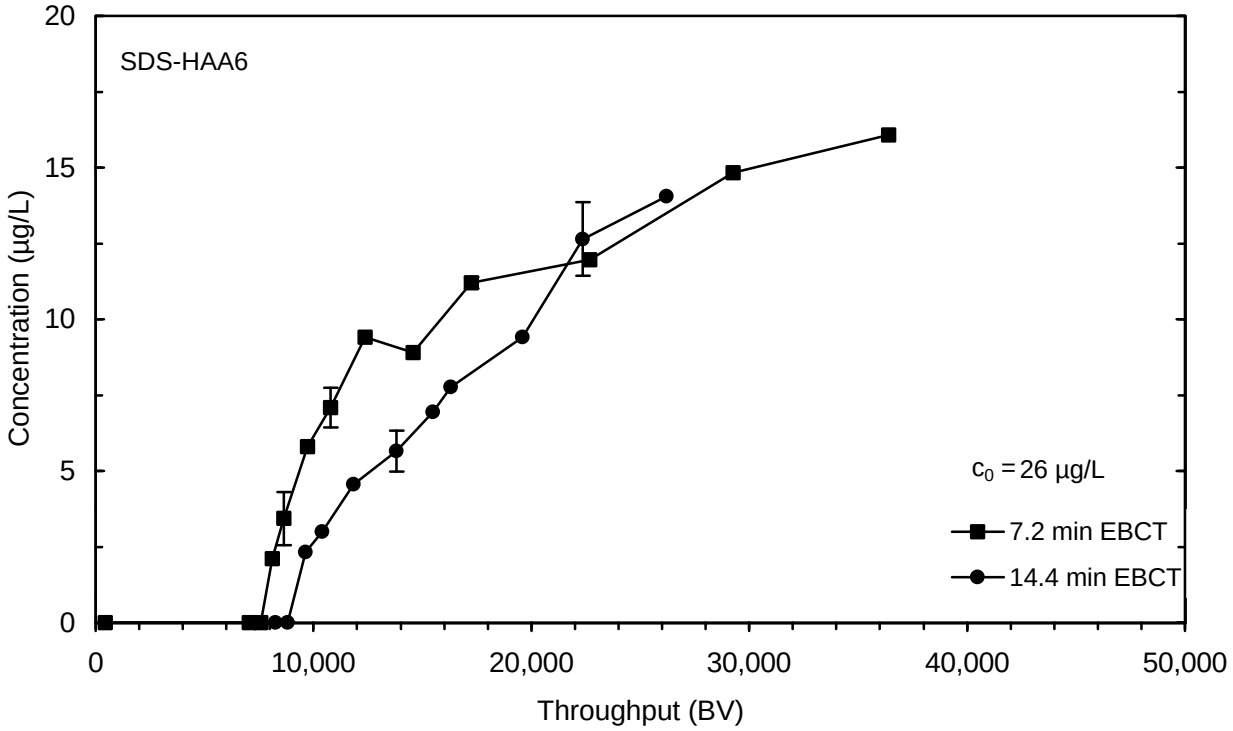


Figure 71 SDS-HAA6 breakthrough for 7.2 and 14.4 minute EBCT contactors during session 4 (October), plotted as throughput in bed volumes treated

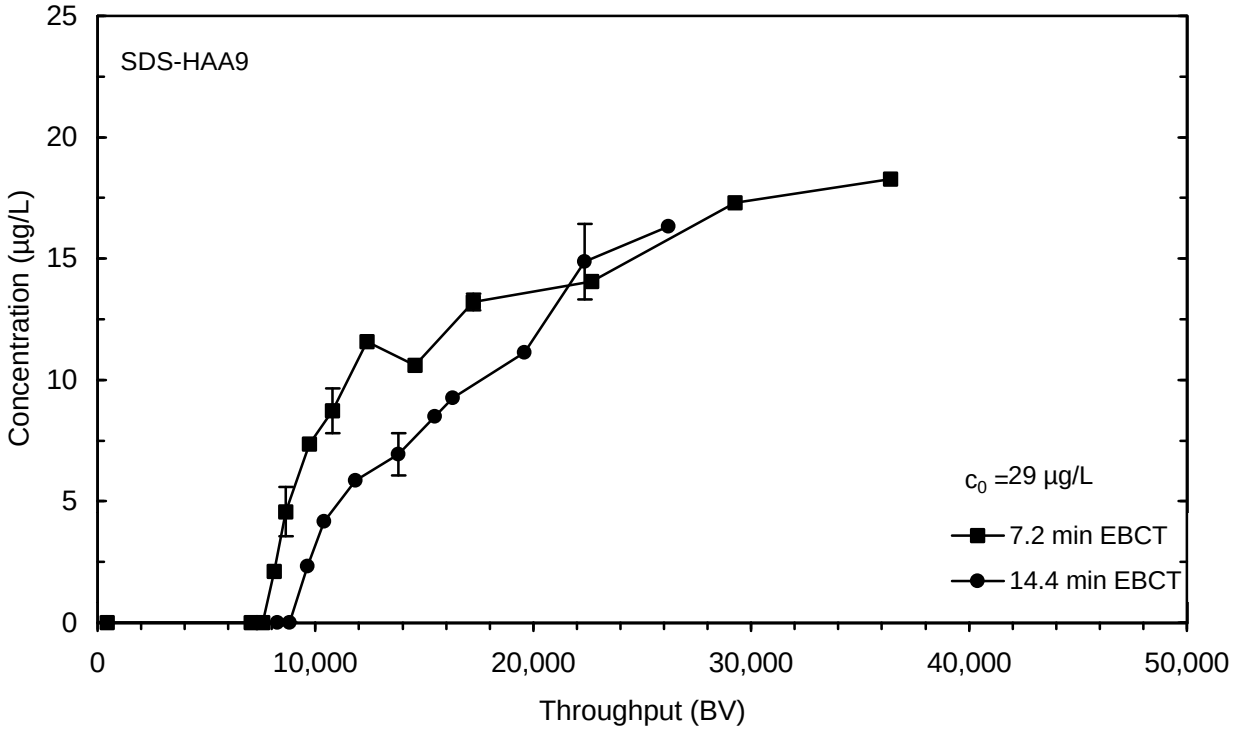


Figure 72 SDS-HAA9 breakthrough for 7.2 and 14.4 minute EBCT contactors during session 4 (October), plotted as throughput in bed volumes treated

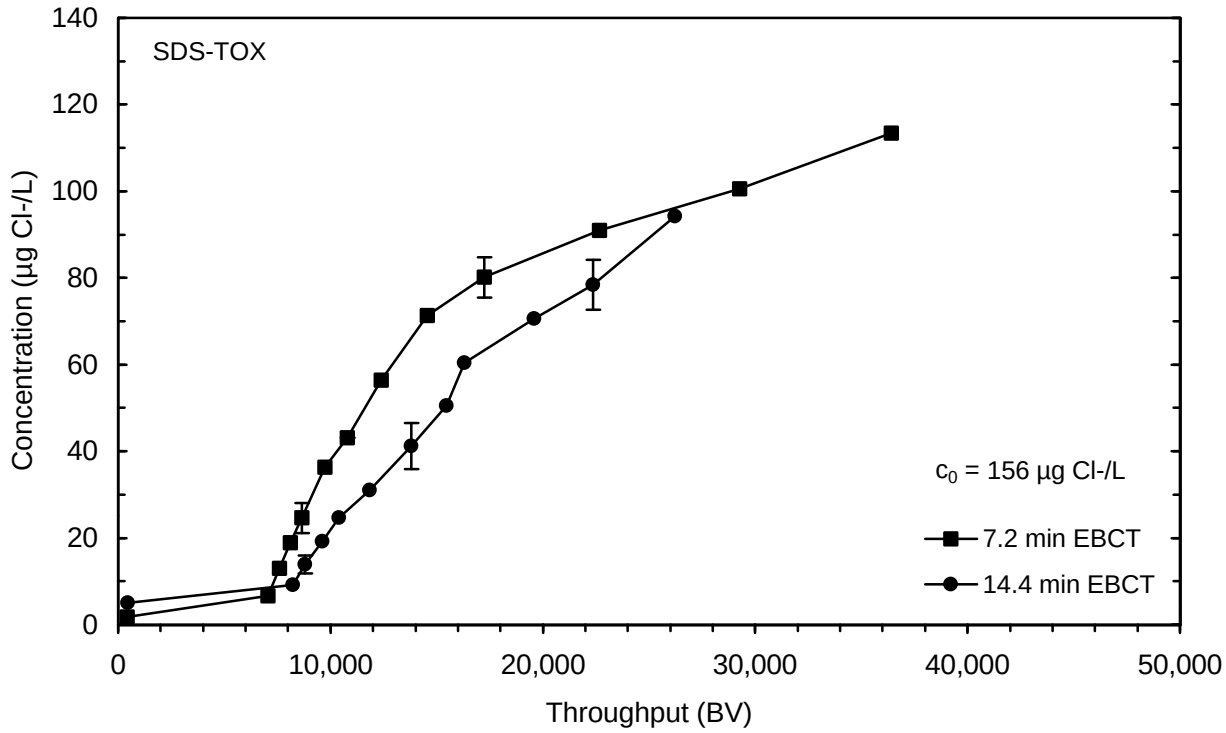


Figure 73 SDS-TOX breakthrough for 7.2 and 14.4 minute EBCT contactors during session 4 (October), plotted as throughput in bed volumes treated

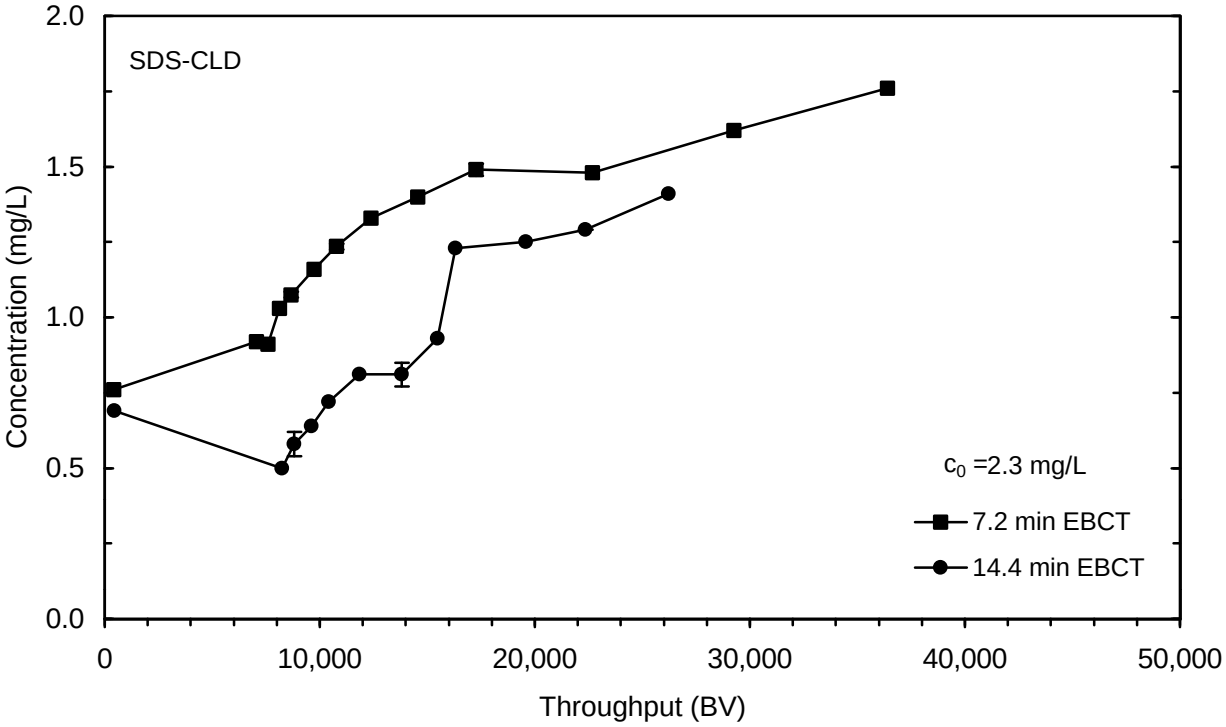


Figure 74 SDS-CLD breakthrough for 7.2 and 14.4 minute EBCT contactors during session 4 (October), plotted as throughput in bed volumes treated

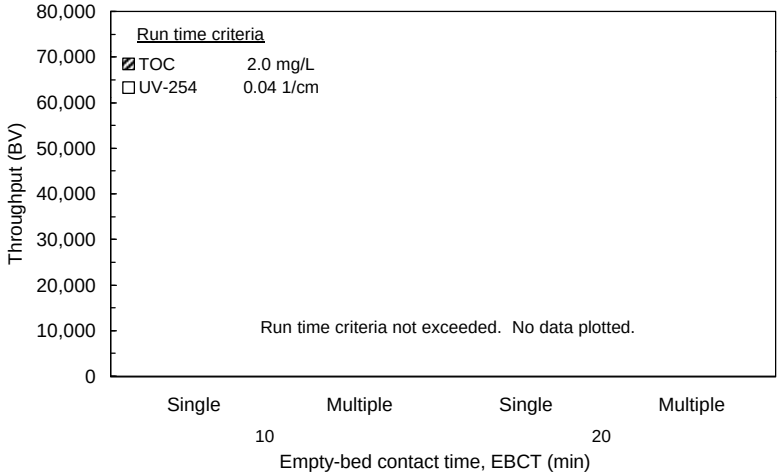


Figure 75 Throughput based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (high) during session 1 (January)

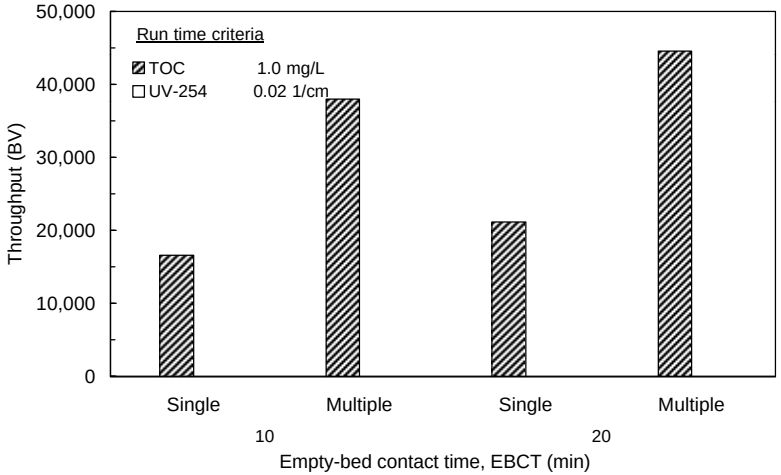


Figure 76 Throughput based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (low) during session 1 (January)

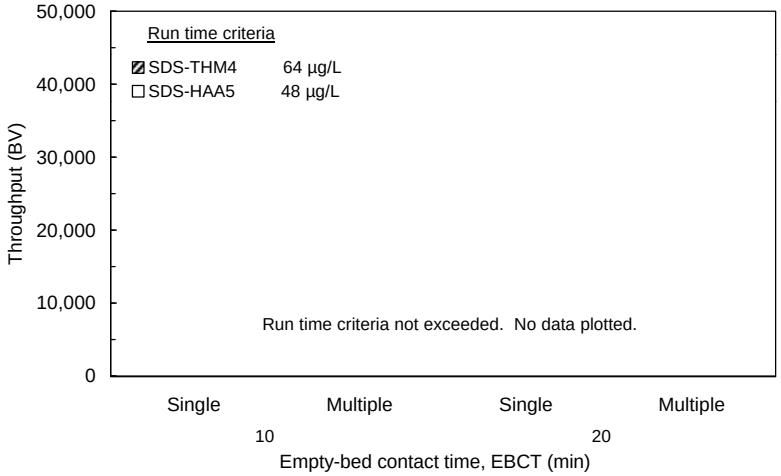


Figure 77 Throughput based on single contactors and effluent blending for Stage 1 SDS-THM4 and SDS-HAA5 effluent criteria during session 1 (January)

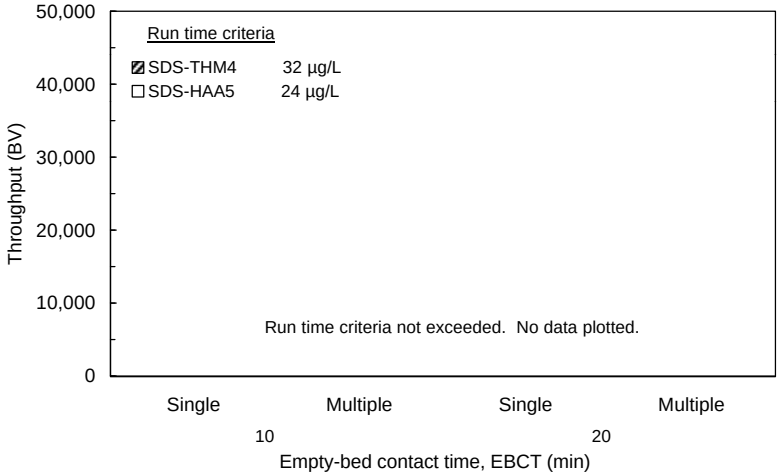


Figure 78 Throughput based on single contactors and effluent blending for Stage 2 SDS-THM4 and SDS-HAA5 effluent criteria during session 1 (January)

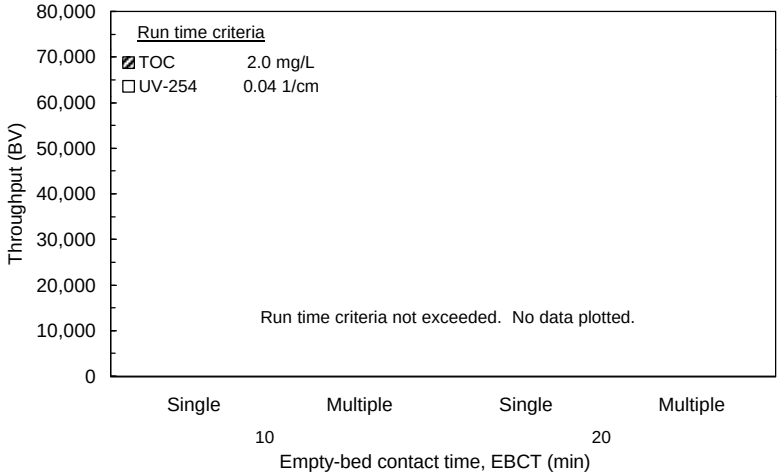


Figure 79 Throughput based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (high) during session 2 (April)

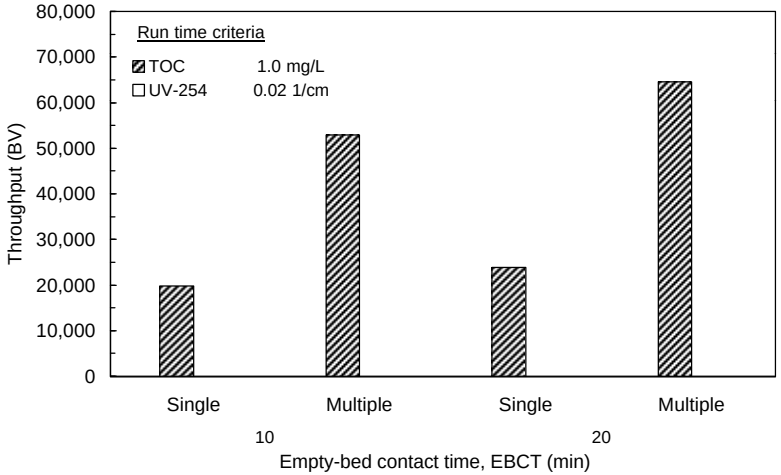


Figure 80 Throughput based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (low) during session 2 (April)

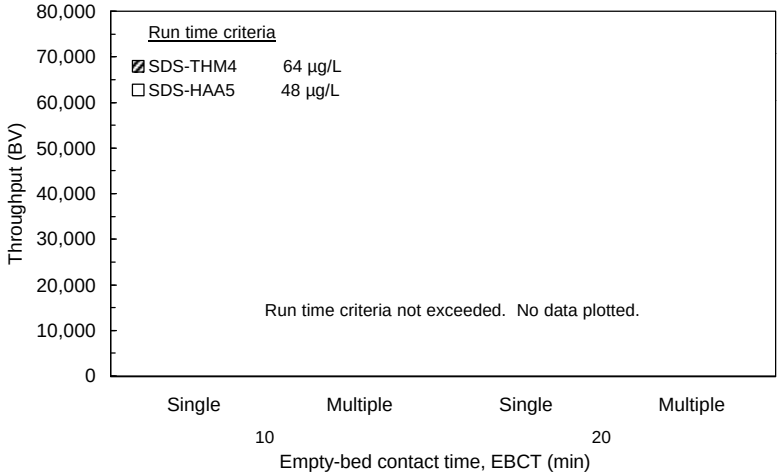


Figure 81 Throughput based on single contactors and effluent blending for Stage 1 SDS-THM4 and SDS-HAA5 effluent criteria during session 2 (April)

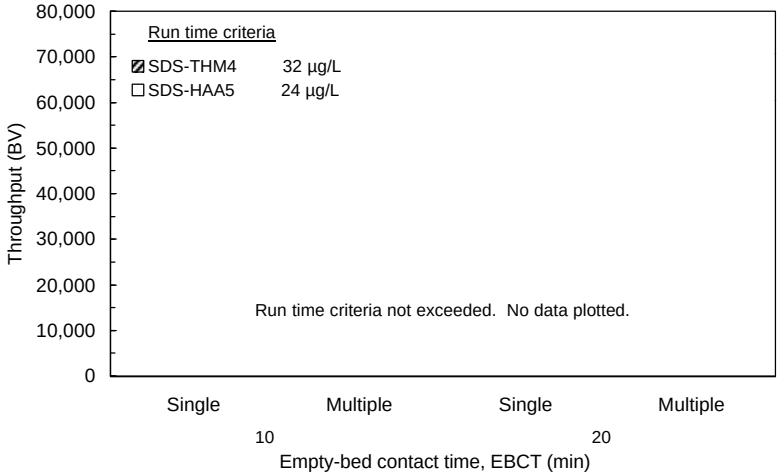


Figure 82 Throughput based on single contactors and effluent blending for Stage 2 SDS-THM4 and SDS-HAA5 effluent criteria during session 2 (April)

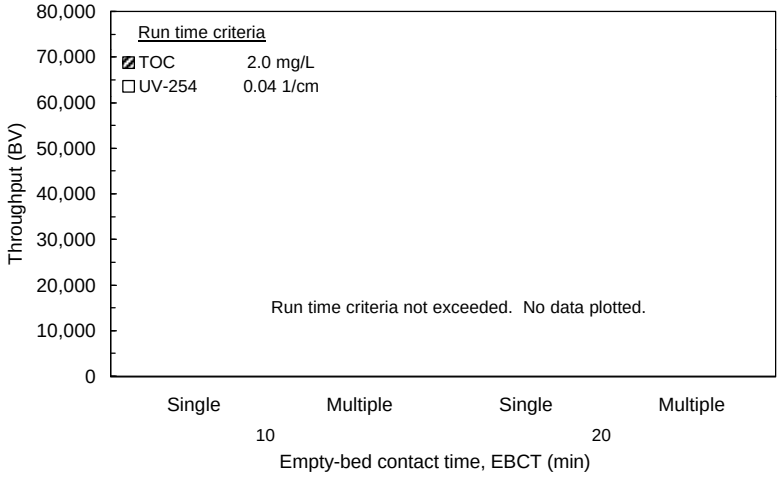


Figure 83 Throughput based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (high) during session 3 (June)

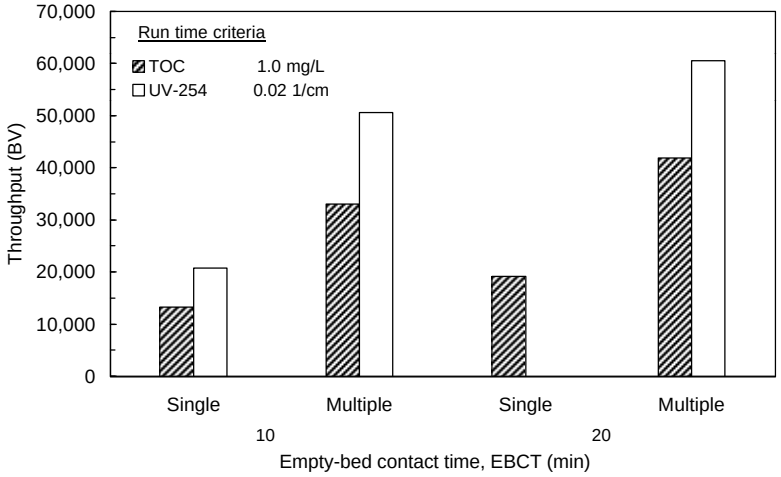


Figure 84 Throughput based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (low) during session 3 (June)

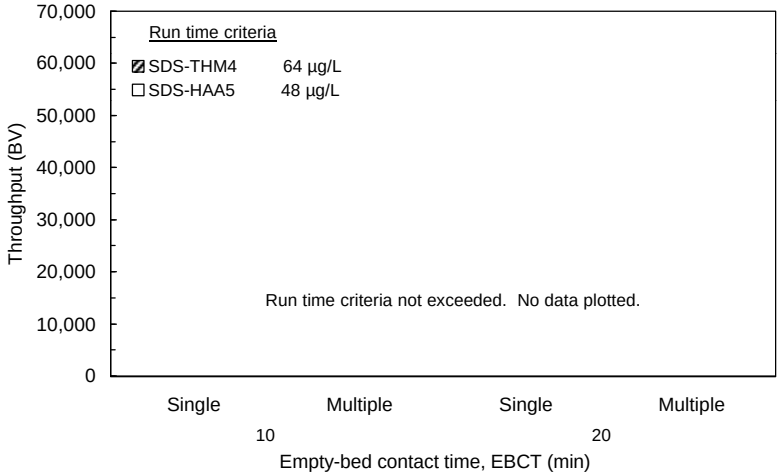


Figure 85 Throughput based on single contactors and effluent blending for Stage 1 SDS-THM4 and SDS-HAA5 effluent criteria during session 3 (June)

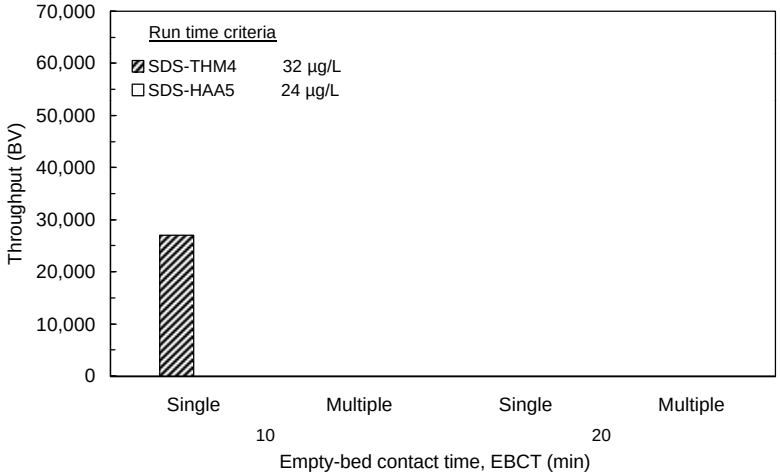


Figure 86 Throughput based on single contactors and effluent blending for Stage 2 SDS-THM4 and SDS-HAA5 effluent criteria during session 3 (June)

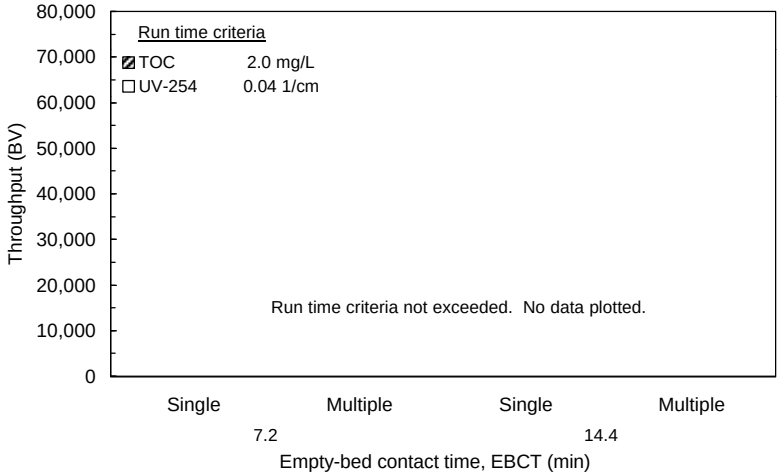


Figure 87 Throughput based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (high) during session 4 (October)

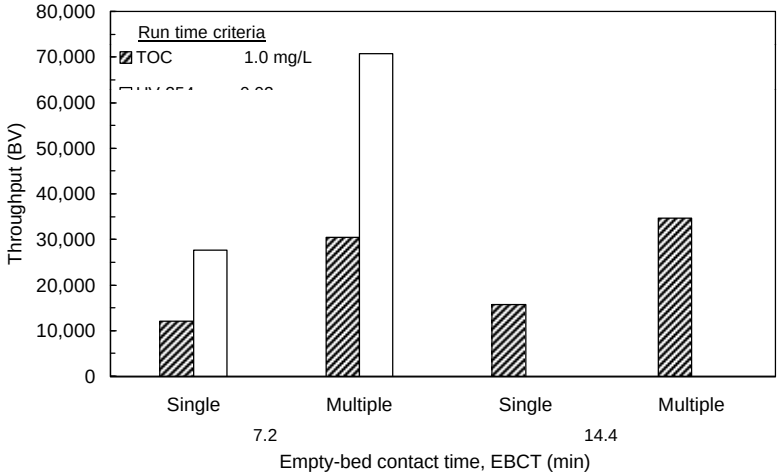


Figure 88 Throughput based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (low) during session 4 (October)

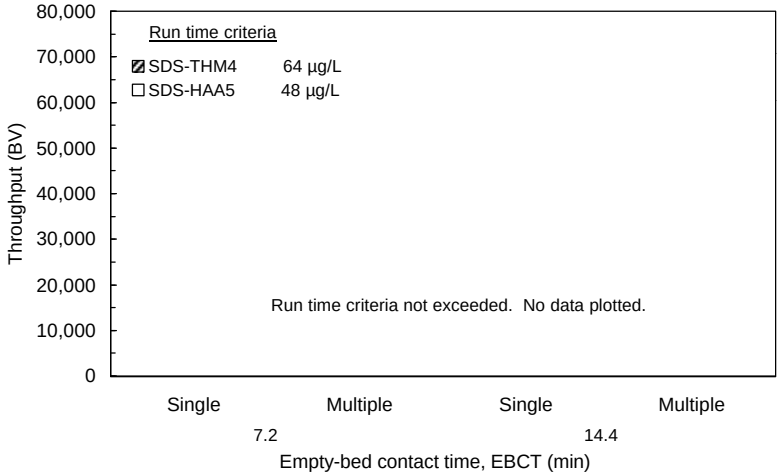


Figure 89 Throughput based on single contactors and effluent blending for Stage 1 SDS-THM4 and SDS-HAA5 effluent criteria during session 4 (October)

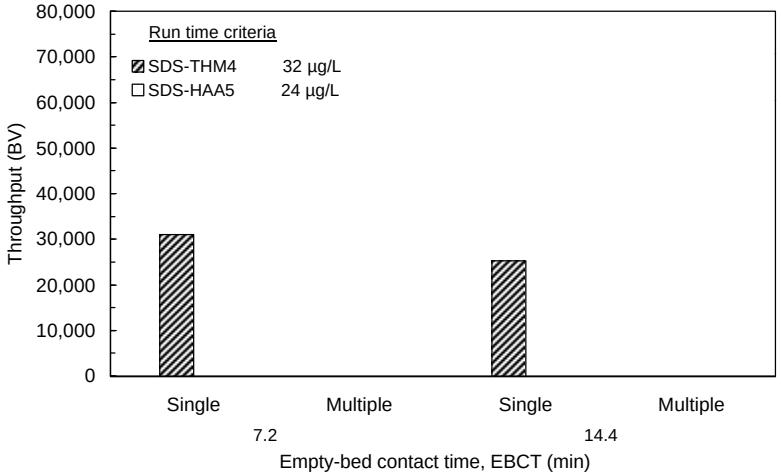


Figure 90 Throughput based on single contactors and effluent blending for Stage 2 SDS-THM4 and SDS-HAA5 effluent criteria during session 4 (October)

10 *Blended Effluent Simulation and Breakthrough Curve Extrapolation*

10 Blended Effluent Simulation and Breakthrough Curve Extrapolation

The data generated by an RSSCT simulates the performance of a single GAC contactor for DBP precursor control. For single contactor operation, when the effluent water quality exceeds levels set as run time criteria, the GAC must be replaced with reactivated or virgin GAC. In practice, multiple GAC contactors in parallel are used, and GAC run times are lengthened significantly by operating the contactors in a staggered mode: the GAC in each contactor is replaced with reactivated or virgin GAC at regular intervals (Westrick and Cohen, 1976; Roberts and Summers, 1982). The effluent from all contactors is blended prior to disinfection. Since only the blended effluent must meet a given water quality objective, each contactor can be operated longer and produce a water quality in excess of the system water quality objective. As a prelude to any type of cost analysis, the impact of blended GAC contactor effluents should be considered.

It is possible to model the performance of contactors operated in parallel staggered mode using the data produced by a single RSSCT. The breakthrough curve data are first fit to the logistic function, a function that results in a characteristic S-shape curve typical of breakthrough curves:

$$C(t) = \frac{A_f - A_0}{1 + Be^{-Dt}} + A_0 \qquad (2)$$

This form of the logistic function is a variation of that presented in Chowdhury et al. (1996). The parameters A_f, A_0, B, and D are varied for a best-fit of the data by a sum of squares minimization algorithm. An equation that simulates a blended effluent scenario can be derived by the following integration of the logistic function:

$$\overline{C}(t) = \frac{1}{t}\int_0^t C(t)dt \qquad (3)$$

For applications involving 10 or more staggered contactors operated in parallel, Equation 3 provides a good approximation of blended effluent water quality (Roberts and Summers, 1982). Integration of Equation 2 and substitution into Equation 3 yields:

$$\overline{C}(t) = A_f + \frac{A_f - A_0}{Dt}\ln\frac{1 + Be^{-Dt}}{1 + B} \qquad (4)$$

After a best fit of the breakthrough data to Equation 2 was determined (using a least squares minimization approach), the parameter values were input into Equation 4. A plot of Equation 4, therefore, gives the blended effluent concentration for any contactor run time. A summary of the best fit parameter values and r^2 values for fits to all 64 breakthrough sets is given in Table 36. As can be seen by the high r^2 for curve fits (mean: 0.94, 25th percentile: 0.94, 75th percentile: 0.98), the model well fit the data. For all breakthrough curves, except those for SDS-CLD, the

value for A_0 is zero and A_0 can be dropped from Equations 2 and 4, yielding a three parameter model. The parameter A_0 is needed for SDS-CLD to account for the high initial breakthrough.

For the January session, Figures 91 through 98 contain single column and blended effluent breakthrough curves for both 10 and 20 minute EBCT contactors for TOC, UV_{254}, SDS-THM4, SDS-HAA5, SDS-HAA6, SDS-HAA9, SDS-TOX, and SDS-CLD. The analysis summarized in these plots demonstrates the significant impact on overall costs of accounting for a blended effluent situation. For example, the 10 minute EBCT contactor TOC breakthrough curve plotted in Figure 91 reaches an effluent concentration of 1.0 mg/L after 115 days. The multiple contactor blended effluent breakthrough curve does not reach an effluent TOC concentration of 1.0 mg/L until after 264 days of single contactor operation time (a 130 percent increase). Thus, the operation time for each single contactor as a part of multiple GAC contactors operated in parallel staggered mode is more than doubled. A similar analysis can be made for the SDS-DBPs. For example, the run time to the placeholder for Stage 2 THM4 MCL based on a 10 minute EBCT contactor during the June session (as shown in Figure 109) is 188 days. After accounting for effluent blending and including an extrapolation procedure the placeholder for Stage 2 THM4 MCL is not exceeded, but the GAC effluent reaches an SDS-THM4 concentration of 29 µg/L (91 percent of the placeholder for Stage 2 THM4 MCL) after 480 days. The single contactor and blended effluent (multiple contactors) comparisons are presented for the April, June, and October sessions for all parameters in Figures 99 through 122.

Table 37 summarizes the run time for a 10 minute EBCT contactor, assuming a blended effluent, for the January session. For each parameter and criterion, the value of other parameters is given when the run time criterion is met. Table 37 also includes, when applicable, run time calculations based on effluent blending of extrapolated breakthrough curves (described below). Tables 38 through 40 summarize the same information for the April, June, and October sessions. Tables 41 through 44 summarize the same information for the 20 minute EBCT contactor for all sessions.

For single and multiple contactor configurations, Tables 45 through 48 summarize the percent increase in run times observed between a 10 and 20 minute EBCT contactor, for all sessions. Based on the range of run time criteria applied, the average increase in run time between a 10 and 20 minute EBCT contactor over all sessions was 153 and 138 for single and multiple contactor configurations, respectively. The similarity in percentages indicates that the percent increase in run time gained by the additional contact time for a single contactor is roughly equivalent to that for a multiple contactor simulation.

By accounting for multiple contactor configurations, the estimated contactor run time increased by an average of 140 and 122 percent as compared to single contactor performance for 10 and 20 minute EBCTs, respectively, and over all sessions. Thus, when 10 or more contactors are operated in staggered mode, the run time of each contactor more than doubled that of a single GAC contactor.

The carbon usage rate (CUR) is a measure of the amount of carbon needed to treat water to the given GAC effluent run time criterion. The CUR is calculated by the following equation:

$$CUR = \frac{EBCT * r}{RT} \quad (5)$$

where r is the GAC density and RT is the run time. The CUR is normally reported with units of lbs/MG. Tables 49 through 52 summarize the percent decrease in CUR observed between 10 and 20 minute EBCT contactors for both single and multiple contactor configurations for all sessions. On average, the CUR for 20 minute EBCT contactors was 20 and 17 percent lower than the CUR for 10 minute EBCT contactors, based on single and multiple contactor breakthrough data, respectively. The CUR based on effluent blending was on average 57 percent lower than the CUR based on single contactor data, for all sessions and EBCTs.

A seasonal comparison of multiple contactor simulation run times is summarized in Table 53, for a 10 minute EBCT, and in Table 54, for a 20 minute EBCT. The mean, standard deviation, and RSD of run times over the three sessions (without October) are listed in each table, providing a measure of the degree of seasonal variability evident in GAC performance after accounting for multiple contactor operation. For example, the run time to a GAC effluent TOC concentration of 1.0 mg/L for 10 minute EBCT contactors ranged from 229 to 367 days, with a RSD of 25 percent.

Bar graph summaries of run times to effluent criteria for single and multiple contactor configurations and for both EBCTs for the January session are shown in Figures 123 through 126. The same data are shown for the April, June, and October sessions in Figures 127 through 138. In many cases the run time criterion was not exceeded and no bar is shown.

The calculated CURs are presented in a bar graph format for single and multiple contactor configurations and for both EBCTs for all sessions in Figures 139 through 154. Again, in cases where run times were not exceeded, no bar is shown.

In many cases, the blended effluent simulation results did not exceed run time criteria. To increase the benefit of the data set, a breakthrough curve extrapolation procedure was developed to allow reasonable and conservative run time estimates to be made, when blended effluent levels did not exceed the reactivation criteria. To the original breakthrough curve data set for each parameter, three points were added at 150, 200, and 250 percent of the run time at which the last sample point was reported (t_{max}), based on the following set of equations:

Point	Run time	Concentration	
A	$1.5t_{max}$	$C(t_{max}) + 0.5[C_{inf} - C(t_{max})]$	(6)
B	$2.0t_{max}$	$C(t_{max}) + 0.6[C_{inf} - C(t_{max})]$	(7)
C	$2.5t_{max}$	$C(t_{max}) + 0.7[C_{inf} - C(t_{max})]$	(8)

where C_{inf} is the influent concentration for each parameter, and $C(t_{max})$ is the effluent concentration of the parameter at t_{max}.

The logistic function curve was fit to the data set including the three extrapolation points. The integrated form of the logistic function (Equation 4) was again used to estimate blended effluent water quality for the extrapolation. The run time data contained in the figures and tables presented earlier in this section include the estimates derived by the extrapolation procedure, when applicable. No breakthrough curves were extrapolated beyond 250 percent of the maximum run time. Figures 155 through 210 contain the extrapolated breakthrough curves for all runs. Table 55 summarizes the best fit parameter values and r^2 values for all curve fits with extrapolation.

Parameter	Coefficient	10 minute EBCT				20 minute EBCT			
		January	April	June	October*	January	April	June	October*
TOC	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	1.56	1.09	1.33	1.49	2.47	1.01	1.31	1.53
	B	6.1	15.6	27.1	22.7	8.3	38.9	15.3	27.8
	D	0.020	0.040	0.051	0.025	0.006	0.023	0.016	0.064
	r^2	0.971	0.987	0.970	0.982	0.965	0.977	0.975	0.974
UV_{254}	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	0.020	0.017	0.023	0.021	0.022	0.016	0.022	0.022
	B	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	D	0.027	0.038	0.036	0.018	0.010	0.017	0.014	0.044
	r^2	0.994	0.981	0.985	0.983	0.993	0.918	0.988	0.978
SDS-THM4	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	17.5	17.0	29.8	33.7	12.8	17.5	22.6	32.7
	B	69.8	107.0	53.6	51.4	131.7	608.3	222.5	39.6
	D	0.040	0.065	0.052	0.025	0.022	0.036	0.033	0.056
	r^2	0.946	0.976	0.969	0.963	0.971	0.971	0.985	0.960
SDS-HAA5	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	7.0	7.7	14.3	12.1	94.9	7.8	9.5	11.9
	B	260.7	1036.4	79.0	140.4	302.3	1520.5	1804.0	72.0
	D	0.049	0.087	0.048	0.029	0.008	0.037	0.042	0.066
	r^2	0.944	0.991	0.969	0.979	0.906	0.891	0.920	0.929
SDS-HAA6	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	8.2	9.2	16.5	14.3	7.9	9.4	11.6	13.9
	B	1543.7	2609.6	62.8	95.5	483.8	1035.1	488.2	106.7
	D	0.070	0.100	0.049	0.029	0.025	0.037	0.037	0.080
	r^2	0.940	0.992	0.966	0.967	0.949	0.887	0.929	0.928
SDS-HAA9	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	9.8	10.7	19.3	16.4	9.2	10.3	14.3	15.6
	B	1144.5	5802.1	60.8	94.8	448.9	1964.3	239.8	241.2
	D	0.070	0.111	0.051	0.030	0.026	0.041	0.033	0.101
	r^2	0.942	0.994	0.961	0.960	0.958	0.862	0.929	0.924
SDS-TOX	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	82	67	103	95	74	67	92	102
	B	21.5	67.3	49.1	49.0	48.0	99.2	57.2	60.5
	D	0.027	0.053	0.048	0.026	0.015	0.024	0.020	0.067
	r^2	0.990	0.989	0.977	0.988	0.981	0.989	0.989	0.977
SDS-CLD	A_o	0.70	-0.57	0.13	0.59	0.91	0.11	0.24	0.67
	A_f	1.08	0.78	1.06	1.37	0.78	0.74	1.01	1.64
	B	20.6	0.9	16.2	996.1	20.0	18.3	19.7	16.0
	D	0.019	0.017	0.045	0.046	0.107	0.017	0.017	0.055
	r^2	0.582	0.905	0.988	0.932	0.349	0.897	0.942	0.958

Table 36 Summary of logistic function curve fit parameters and r2 values

Parameter	Units	Influent concen-tration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (blended effluent)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	2.1	2.0	*	*							
			1.0	264#	37,990	1.0	0.012	11	4	5	6	48
			1.0†	282#	40,620	1.0	0.012	11	4	6	7	50
UV_{254}	(1/cm)	0.030	0.040	*	*							
			0.020	*	*							
			0.015†	359#	51,670	1.2	0.015	13	6	7	9	61
SDS-THM4	(µg/L)	22	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	16	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	18	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	20	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	121	120	*	*							
			70	462#	66,470	1.3	0.017	14	7	8	10	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Value of listed parameter is left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 37 Run times to selected GAC effluent criteria based on effluent blending (10 minute EBCT) during session 1, January

Parameter	Units	Influent concen-tration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (blended effluent)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	1.5	2.0	*	*							
			1.0	367#	52,910	1.0	0.017	18	8	10	11	69
			0.8†	211#	30,310	0.8	0.012	13	6	7	8	48
UV_{254}	(1/cm)	0.030	0.040	*	*							
			0.020	*	*							
			0.015†	290#	41,780	0.9	0.015	16	7	9	10	61
SDS-THM4	(µg/L)	32	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	16	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	17	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	19	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	123	120	*	*							
			70	378#	54,500	1.0	0.017	18	9	10	11	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Value of listed parameter is left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 38 Run times to selected GAC effluent criteria based on effluent blending (10 minute EBCT) during session 2, April

Parameter	Units	Influent concen-tration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (blended effluent)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	1.9	2.0	*	*							
			1.0	229#	32,990	1.0	0.015	21	9	11	13	71
			0.9†	205#	29,550	0.9	0.013	19	8	10	12	64
UV_{254}	(1/cm)	0.038	0.040	*	*							
			0.020	351#	50,560	1.2	0.020	26	12	14	16	95
			0.019†	322#	46,350	1.2	0.019	25	12	14	16	90
SDS-THM4	(µg/L)	43	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	22	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	24	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	27	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	174	120	*	*							
			70	227#	32,700	1.0	0.015	21	9	11	13	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Value of listed parameter is left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 39 Run times to selected GAC effluent criteria based on effluent blending (10 minute EBCT) during session 3, June

Parameter	Units	Influent concentration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (blended effluent)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	2.0	2.0	*	*							
			1.0	152	30,470	1.0	0.012	19	7	9	10	61
			1.0†	154	30,790	1.0	0.012	19	7	9	10	62
UV_{254}	(1/cm)	0.032	0.040	*	*							
			0.020	354#	70,700	1.4	0.020	29	13	15	17	98
			0.016†	218#	43,680	1.2	0.016	24	9	11	13	81
SDS-THM4	(µg/L)	42	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	23	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	26	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	29	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	156	120	*	*							
			70	174#	34,710	1.1	0.014	21	7	9	11	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Value of listed parameter is left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 40 Run times to selected GAC effluent criteria based on effluent blending (7.2 minute EBCT) during session 4, October

Parameter	Units	Influent concentration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (blended effluent)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	2.1	2.0	*	*							
			1.0	618#	44,520	1.0	0.012	10	5	6	8	0
			1.0†	657#	47,290	1.0	0.013	10	6	7	8	0
UV_{254}	(1/cm)	0.030	0.040	*	*							
			0.020	*	*							
			0.015†	822#	59,200	1.2	0.015	12	7	8	10	0
SDS-THM4	(µg/L)	22	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	16	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	18	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	20	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	121	120	*	*							
			70	*	*							

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Value of listed parameter is left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 41 Run times to selected GAC effluent criteria based on effluent blending (20 minute EBCT) during session 1, January

Parameter	Units	Influent concentration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (blended effluent)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	1.5	2.0	*	*							
			1.0	897#	64,600	1.0	*	*	*	*	*	*
			0.8†	507#	36,530	0.8	0.012	14	6	7	8	49
UV_{254}	(1/cm)	0.030	0.040	*	*							
			0.020	*	*							
			0.015†	694#	49,970	0.9	0.015	17	8	9	10	62
SDS-THM4	(µg/L)	32	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	16	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	17	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	19	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	123	120	*	*							
			70	*	*							

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Value of listed parameter is left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 42 Run times to selected GAC effluent criteria based on effluent blending (20 minute EBCT) during session 2, April

Parameter	Units	Influent concentration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (blended effluent)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	1.9	2.0	*	*							
			1.0	581#	41,850	1.0	0.015	20	9	10	12	73
			0.9†	525#	37,830	0.9	0.014	18	8	10	12	67
UV_{254}	(1/cm)	0.038	0.040	*	*							
			0.020	841#	60,540	1.2	0.020	24	11	13	15	94
			0.019†	772#	55,560	1.2	0.019	23	11	13	15	90
SDS-THM4	(µg/L)	43	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	22	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	24	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	27	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	174	120	*	*							
			70	554#	39,880	1.0	0.015	19	8	10	12	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Value of listed parameter is left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 43 Run times to selected GAC effluent criteria based on effluent blending (20 minute EBCT) during session 3, June

Parameter	Units	Influent concen-tration	Breakthrough criterion	Value of listed parameter when breakthrough criterion is met (blended effluent)								
				Run time (days)	Throughput (bed volumes)	TOC (mg/L)	UV_{254} (1/cm)	SDS-THM4 (µg/L)	SDS-HAA5 (µg/L)	SDS-HAA6 (µg/L)	SDS-HAA9 (µg/L)	SDS-TOX (µg Cl^-/L)
TOC	(mg/L)	2.0	2.0	*	*							
			1.0	347#	34,730	1.0	0.012	19	7	9	10	59
			1.0†	350#	35,000	1.0	0.012	19	7	9	10	60
UV_{254}	(1/cm)	0.032	0.040	*	*							
			0.020	*	*							
			0.016†	512#	51,250	1.2	0.016	25	11	13	15	81
SDS-THM4	(µg/L)	42	80	*	*							
			64	*	*							
			32	*	*							
SDS-HAA5	(µg/L)	23	48	*	*							
			24	*	*							
SDS-HAA6	(µg/L)	26	48	*	*							
			24	*	*							
SDS-HAA9	(µg/L)	29	48	*	*							
			24	*	*							
SDS-TOX	(µg Cl^-/L)	156	120	*	*							
			70	414#	41,400	1.1	0.014	22	9	11	12	70

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Value of listed parameter is left blank.
#Run time estimated from breakthrough curve extrapolation procedure.

Table 44 Run times to selected GAC effluent criteria based on effluent blending (14.4 minute EBCT) during session 4, October

Parameter	Units	Influent concen-tration	Breakthrough criterion	Run time (days) at given EBCT (min)				Increase in run time (%)			
				10		20		10 to 20 min EBCT		Single to multiple contactors EBCT (min)	
				Contactor configuration				Contactor configuration			
				Single	Multiple	Single	Multiple	Single	Multiple	10	20
TOC	(mg/L)	2.1	2.0	*	*	*	*				
			1.0	115	264	293	618	155	134	130	111
			1.0†	122	282	307	657	152	133	131	114
UV-254	(1/cm)	0.030	0.040	*	*	*	*				
			0.020	*	*	*	*				
			0.015†	157	359	*	822		129	128	
SDS-THM4	(µg/L)	22	80	*	*	*	*				
			64	*	*	*	*				
			32	*	*	*	*				
SDS-HAA5	(µg/L)	16	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA6	(µg/L)	18	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA9	(µg/L)	20	48	*	*	*	*				
			24	*	*	*	*				
SDS-TOX	(µg Cl^-/L)	121	120	*	*	*	*				
			70	185	462	*	*			150	

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 45 Summary of GAC run times to selected GAC effluent criteria during session 1, January

Parameter	Units	Influent concen-tration	Breakthrough criterion	Run time (days) at given EBCT (min)				Increase in run time (%)			
				10		20		10 to 20 min EBCT		Single to multiple contactors EBCT (min)	
				Contactor configuration				Contactor configuration			
				Single	Multiple	Single	Multiple	Single	Multiple	10	20
TOC	(mg/L)	1.5	2.0	*	*	*	*				
			1.0	138	367	332	897	141	144	167	170
			0.8†	93	211	213	507	129	141	125	138
UV-254	(1/cm)	0.030	0.040	*	*	*	*				
			0.020	*	*	*	*				
			0.015†	139	290	335	694	141	139	108	107
SDS-THM4	(µg/L)	32	80	*	*	*	*				
			64	*	*	*	*				
			32	*	*	*	*				
SDS-HAA5	(µg/L)	16	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA6	(µg/L)	17	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA9	(µg/L)	19	48	*	*	*	*				
			24	*	*	*	*				
SDS-TOX	(µg Cl^-/L)	123	120	*	*	*	*				
			70	*	378	*	*				

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 46 Summary of GAC run times to selected GAC effluent criteria during session 2, April

Parameter	Units	Influent concen-tration	Breakthrough criterion	Run time (days) at given EBCT (min)				Increase in run time (%)			
				10		20		10 to 20 min EBCT		Single to multiple contactors EBCT (min)	
				Contactor configuration				Contactor configuration			
				Single	Multiple	Single	Multiple	Single	Multiple	10	20
TOC	(mg/L)	1.9	2.0	*	*	*	*				
			1.0	92	229	266	581	188	154	148	118
			0.9†	80	205	231	525	187	156	155	128
UV-254	(1/cm)	0.038	0.040	*	*	*	*				
			0.020	144	351	*	841		139	144	
			0.019†	130	322	352	772	170	140	147	119
SDS-THM4	(µg/L)	43	80	*	*	*	*				
			64	*	*	*	*				
			32	188	*	*	*				
SDS-HAA5	(µg/L)	22	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA6	(µg/L)	24	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA9	(µg/L)	27	48	*	*	*	*				
			24	*	*	*	*				
SDS-TOX	(µg Cl^-/L)	174	120	*	*	*	*				
			70	99	227	279	554	180	144	128	99

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 47 Summary of GAC run times to selected GAC effluent criteria during session 3, June

Parameter	Units	Influent concen-tration	Breakthrough criterion	Run time (days) at given EBCT (min)				Increase in run time (%)			
				7.2		14.4		7.2 to 14.4 min EBCT		Single to multiple contactors EBCT (min)	
				Contactor configuration				Contactor configuration			
				Single	Multiple	Single	Multiple	Single	Multiple	7.2	14.4
TOC	(mg/L)	2.0	2.0	*	*	*	*				
			1.0	60	152	157	347	161	128	153	121
			1.0†	60	154	158	350	161	127	155	122
UV-254	(1/cm)	0.032	0.040	*	*	*	*				
			0.020	138	354	*	*			156	
			0.016†	95	218	228	512	141	135	131	125
SDS-THM4	(µg/L)	42	80	*	*	*	*				
			64	*	*	*	*				
			32	155	*	253	*	63			
SDS-HAA5	(µg/L)	23	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA6	(µg/L)	26	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA9	(µg/L)	29	48	*	*	*	*				
			24	*	*	*	*				
SDS-TOX	(µg Cl^-/L)	156	120	*	*	*	*				
			70	72	174	194	414	170	139	142	114

†GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

#Run time estimated from breakthrough curve extrapolation procedure.

Table 48 Summary of GAC run times to selected GAC effluent criteria during session 4, October

Parameter	Units	Influent concen-tration	Breakthrough criterion	Carbon usage rate, CUR (lbs/MG) at given EBCT (min)				Decrease in CUR (%)			
				10		20		10 to 20 min EBCT		Single to multiple contactors EBCT (min)	
				Contactor configuration				Contactor configuration			
				Single	Multiple	Single	Multiple	Single	Multiple	10	20
TOC	(mg/L)	2.1	2.0	*	*	*	*				
			1.0	250	110	200	90	20	18	56	55
			1.0†	240	100	190	90	21	10	58	53
UV-254	(1/cm)	0.030	0.040	*	*	*	*				
			0.020	*	*	*	*				
			0.015†	180	80	*	70		13	56	
SDS-THM4	(µg/L)	22	80	*	*	*	*				
			64	*	*	*	*				
			32	*	*	*	*				
SDS-HAA5	(µg/L)	16	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA6	(µg/L)	18	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA9	(µg/L)	20	48	*	*	*	*				
			24	*	*	*	*				
SDS-TOX	(µg Cl^-/L)	121	120	*	*	*	*				
			70	160	60	*	*			63	

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

Table 49 Summary of carbon usage rates to selected GAC effluent criteria during session 1, January

Parameter	Units	Influent concen-tration	Breakthrough criterion	Carbon usage rate, CUR (lbs/MG) at given EBCT (min)				Decrease in CUR (%)			
				10		20		10 to 20 min EBCT		Single to multiple contactors EBCT (min)	
				Contactor configuration				Contactor configuration			
				Single	Multiple	Single	Multiple	Single	Multiple	10	20
TOC	(mg/L)	1.5	2.0	*	*	*	*				
			1.0	210	80	170	60	19	25	62	65
			0.8†	310	140	270	110	13	21	55	59
UV-254	(1/cm)	0.030	0.040	*	*	*	*				
			0.020	*	*	*	*				
			0.015†	210	100	170	80	19	20	52	53
SDS-THM4	(µg/L)	32	80	*	*	*	*				
			64	*	*	*	*				
			32	*	*	*	*				
SDS-HAA5	(µg/L)	16	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA6	(µg/L)	17	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA9	(µg/L)	19	48	*	*	*	*				
			24	*	*	*	*				
SDS-TOX	(µg Cl^-/L)	123	120	*	*	*	*				
			70	*	80	*	*				

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

Table 50 Summary of carbon usage rates to selected GAC effluent criteria during session 2, April

Parameter	Units	Influent concen-tration	Breakthrough criterion	Carbon usage rate, CUR (lbs/MG) at given EBCT (min)				Decrease in CUR (%)			
				10		20		10 to 20 min EBCT		Single to multiple contactors EBCT (min)	
				Contactor configuration				Contactor configuration			
				Single	Multiple	Single	Multiple	Single	Multiple	10	20
TOC	(mg/L)	1.9	2.0	*	*	*	*				
			1.0	310	130	220	100	29	23	58	55
			0.9†	360	140	250	110	31	21	61	56
UV-254	(1/cm)	0.038	0.040	*	*	*	*				
			0.020	200	80	*	70		13	60	
			0.019†	220	90	160	70	27	22	59	56
SDS-THM4	(µg/L)	43	80	*	*	*	*				
			64	*	*	*	*				
			32	150	*	*	*				
SDS-HAA5	(µg/L)	22	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA6	(µg/L)	24	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA9	(µg/L)	27	48	*	*	*	*				
			24	*	*	*	*				
SDS-TOX	(µg Cl^-/L)	174	120	*	*	*	*				
			70	290	130	210	100	28	23	55	52

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

Table 51 Summary of carbon usage rates to selected GAC effluent criteria during session 3, June

Parameter	Units	Influent concen-tration	Breakthrough criterion	Carbon usage rate, CUR (lbs/MG) at given EBCT (min)				Decrease in CUR (%)			
				7.2		14.4		7.2 to 14.4 min EBCT		Single to multiple contactors EBCT (min)	
				Contactor configuration				Contactor configuration			
				Single	Multiple	Single	Multiple	Single	Multiple	7.2	14.4
TOC	(mg/L)	2.0	2.0	*	*	*	*				
			1.0	340	140	260	120	24	14	59	54
			1.0†	340	130	260	120	24	8	62	54
UV-254	(1/cm)	0.032	0.040	*	*	*	*				
			0.020	150	60	*	*			60	
			0.016†	220	90	180	80	18	11	59	56
SDS-THM4	(µg/L)	42	80	*	*	*	*				
			64	*	*	*	*				
			32	130	*	160	*	-23			
SDS-HAA5	(µg/L)	23	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA6	(µg/L)	26	48	*	*	*	*				
			24	*	*	*	*				
SDS-HAA9	(µg/L)	29	48	*	*	*	*				
			24	*	*	*	*				
SDS-TOX	(µg Cl^-/L)	156	120	*	*	*	*				
			70	290	120	210	100	28	17	59	52

†GAC effluent concentration equal to 50 percent of the average influent concentration.
*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

Table 52 Summary of carbon usage rates to selected GAC effluent criteria during session 4, October

Parameter	Units	Value	Run time (days)				Sessions 1 - 3		
			Session				Mean	Standard deviation	Relative standard deviation (%)
			1 January	2 April	3 June	4 October[†]			
TOC	(mg/L)	2.0	*	*	*	*			
		1.0	264#	367#	229#	152	287	±72	25%
		c/c_0 = 50%[††]	282#	211#	205#	154	233	±43	18%
UV-254	(1/cm)	0.040	*	*	*	*			
		0.020	*	*	351#	354#	351		
		c/c_0 = 50%[††]	359#	290#	322#	218#	324	±34	11%
SDS-THM4	(µg/L)	80	*	*	*	*			
		64	*	*	*	*			
		32	*	*	*	*			
SDS-HAA5	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-HAA6	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-HAA9	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-TOX	(µg Cl^-/L)	120	*	*	*	*			
		70	462#	378#	227#	174#	356	±119	33%
Extrapolated run time (days)		--	664	398	480	455	514	±136	27%

[†]7.2 minute EBCT

[††]GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

[#]Run time estimated from breakthrough curve extrapolation procedure.

Table 53 Run times to selected GAC effluent criteria based on effluent blending (10 minute EBCT)

Parameter	Units	Value	Run time (days)				Sessions 1 - 3		
			Session				Mean	Standard deviation	Relative standard deviation (%)
			1 January	2 April	3 June	4 October[†]			
TOC	(mg/L)	2.0	*	*	*	*			
		1.0	618#	897#	581#	347#	699	±173	25%
		c/c_0 = 50%[††]	657#	507#	525#	350#	563	±82	14%
UV-254	(1/cm)	0.040	*	*	*	*			
		0.020	*	*	841#	*	841		
		c/c_0 = 50%[††]	822#	694#	772#	512#	763	±65	8%
SDS-THM4	(µg/L)	80	*	*	*	*			
		64	*	*	*	*			
		32	*	*	*	*			
SDS-HAA5	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-HAA6	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-HAA9	(µg/L)	48	*	*	*	*			
		24	*	*	*	*			
SDS-TOX	(µg Cl^-/L)	120	*	*	*	*			
		70	*	*	554#	414#	554		
Extrapolated run time (days)		--	936	846	914	655	898	±47	5%

[†]14.4 minute EBCT

[††]GAC effluent concentration equal to 50 percent of the average influent concentration.

*Effluent concentration criteria not exceeded during GAC run time (including extrapolation procedure). Calculated values are left blank.

[#]Run time estimated from breakthrough curve extrapolation procedure.

Table 54 Run times to selected GAC effluent criteria based on effluent blending (20 minute EBCT)

Parameter	Coefficient	10 minute EBCT				20 minute EBCT			
		January	April	June	October*	January	April	June	October*
TOC	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	3.27	2.80	2.89	2.90	3.33	2.75	2.98	2.88
	B	9.1	7.2	6.7	9.5	8.1	9.2	6.3	6.3
	D	0.090	0.057	0.058	0.084	0.030	0.028	0.023	0.027
	r^2	0.950	0.946	0.949	0.972	0.960	0.956	0.967	0.949
UV_{254}	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	0.064	0.055	0.055	0.051	0.067	0.055	0.055	0.053
	B	13.5	10.5	10.0	10.2	12.6	12.6	10.7	9.3
	D	0.074	0.056	0.051	0.067	0.026	0.024	0.022	0.023
	r^2	0.936	0.937	0.945	0.928	0.954	0.946	0.939	0.943
SDS-THM4	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	52.4	49.2	100.3	83.4	54.5	49.5	103.1	82.6
	B	14.1	8.8	9.3	9.3	11.8	12.2	10.7	8.7
	D	0.096	0.069	0.057	0.075	0.033	0.033	0.025	0.031
	r^2	0.931	0.904	0.939	0.948	0.905	0.939	0.960	0.946
SDS-HAA5	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	26.3	27.2	29.0	24.7	28.3	27.2	29.4	24.5
	B	7.1	9.5	9.5	13.5	14.9	9.8	11.0	13.2
	D	0.046	0.055	0.050	0.079	0.023	0.023	0.022	0.028
	r^2	0.820	0.892	0.871	0.927	0.947	0.806	0.914	0.904
SDS-HAA6	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	29.3	31.7	33.8	29.6	31.5	31.6	34.2	29.3
	B	7.6	8.3	9.6	12.6	12.4	9.3	10.0	11.9
	D	0.059	0.057	0.059	0.087	0.025	0.025	0.024	0.031
	r^2	0.834	0.901	0.886	0.937	0.935	0.830	0.904	0.908
SDS-HAA9	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	30.5	34.0	37.1	33.1	31.0	33.5	37.2	34.2
	B	12.4	5.8	7.4	16.8	9.4	5.4	8.6	10.8
	D	0.089	0.055	0.057	0.108	0.025	0.024	0.025	0.031
	r^2	0.896	0.877	0.873	0.923	0.866	0.799	0.914	0.885
SDS-TOX	A_o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A_f	162	183	223	194	169	184	224	194
	B	23.3	10.6	10.6	13.6	71.3	14.0	11.0	10.3
	D	0.096	0.052	0.051	0.078	0.046	0.024	0.022	0.025
	r^2	0.923	0.898	0.924	0.957	0.945	0.915	0.928	0.946

Table 55 Summary of logistic function curve fit parameters and r2 values for curve fits after breakthrough curve extrapolation

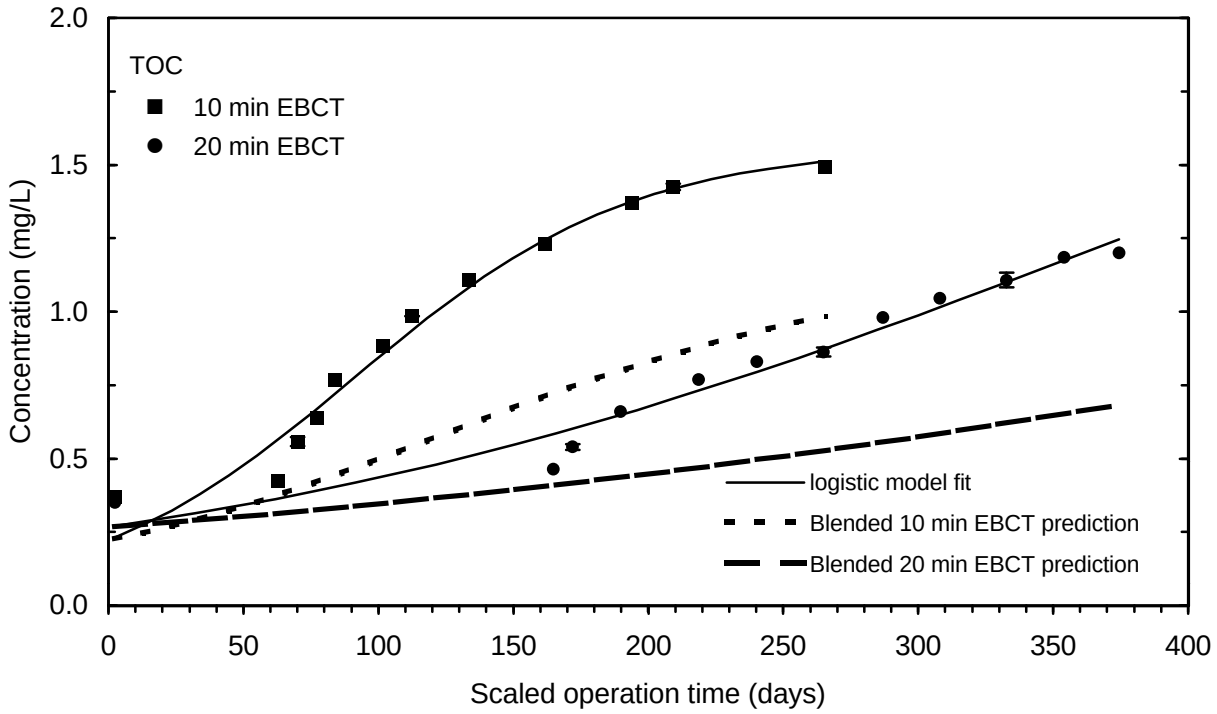


Figure 91 TOC breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 1 (January)

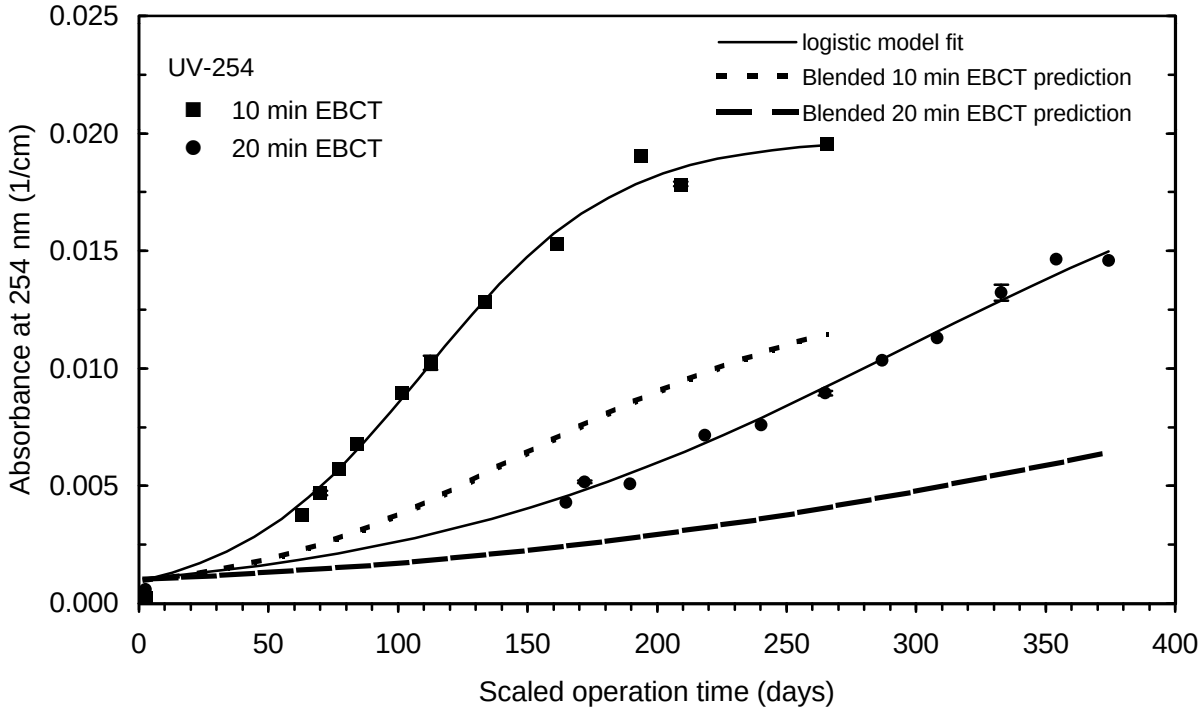


Figure 92 UV-254 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 1 (January)

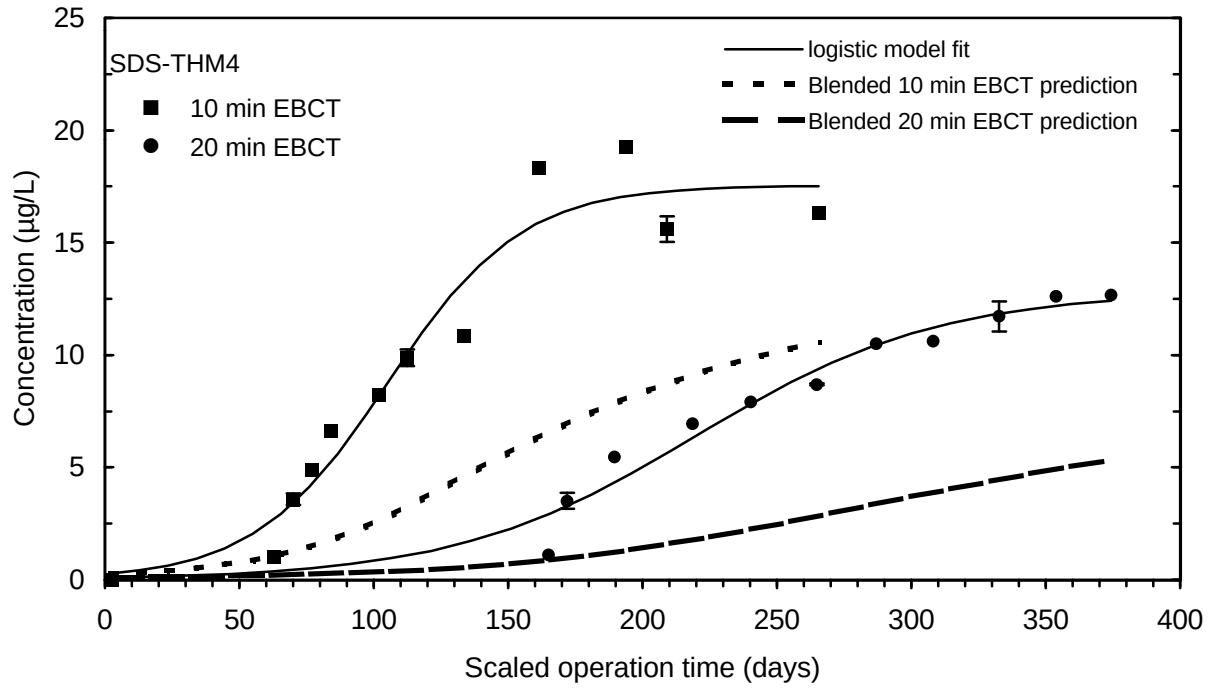


Figure 93 SDS-THM4 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 1 (January)

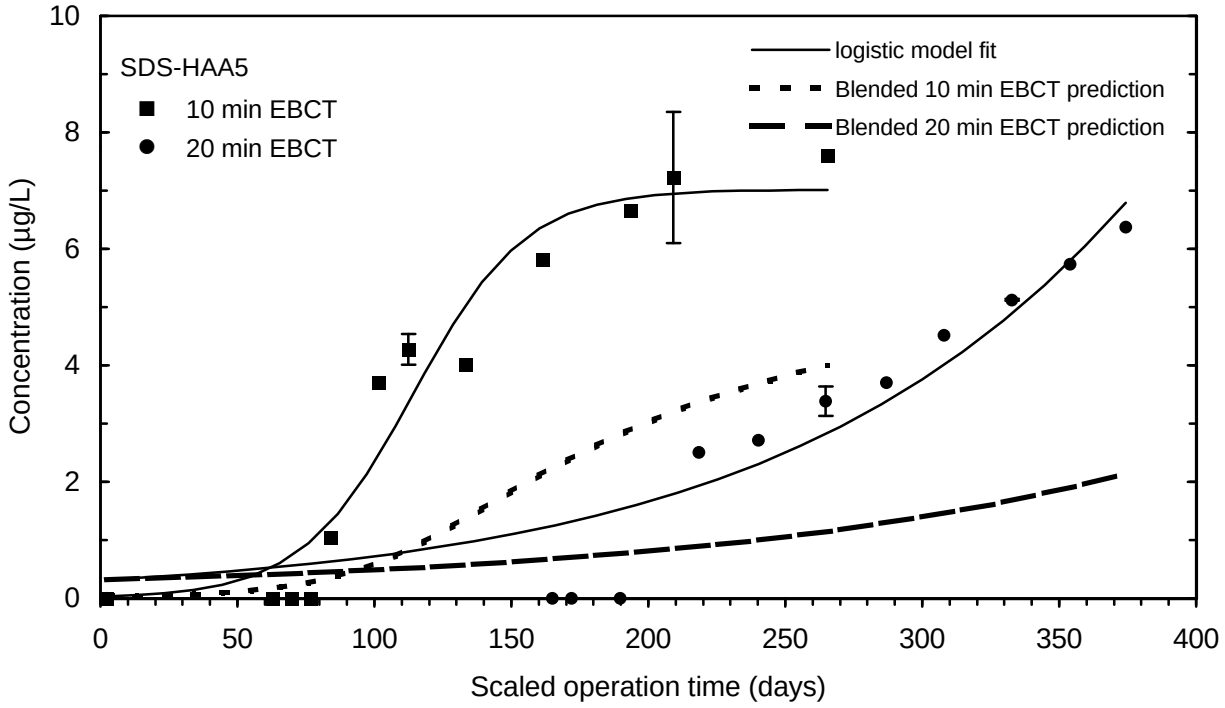


Figure 94 SDS-HAA5 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 1 (January)

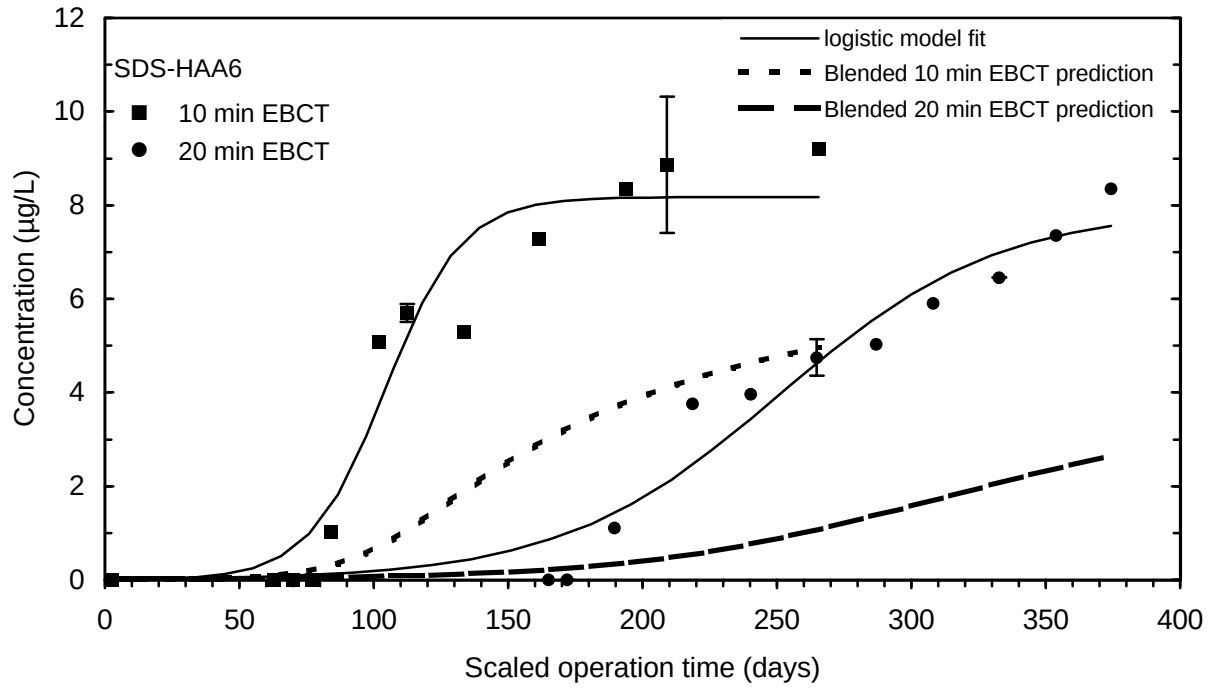


Figure 95 SDS-HAA6 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 1 (January)

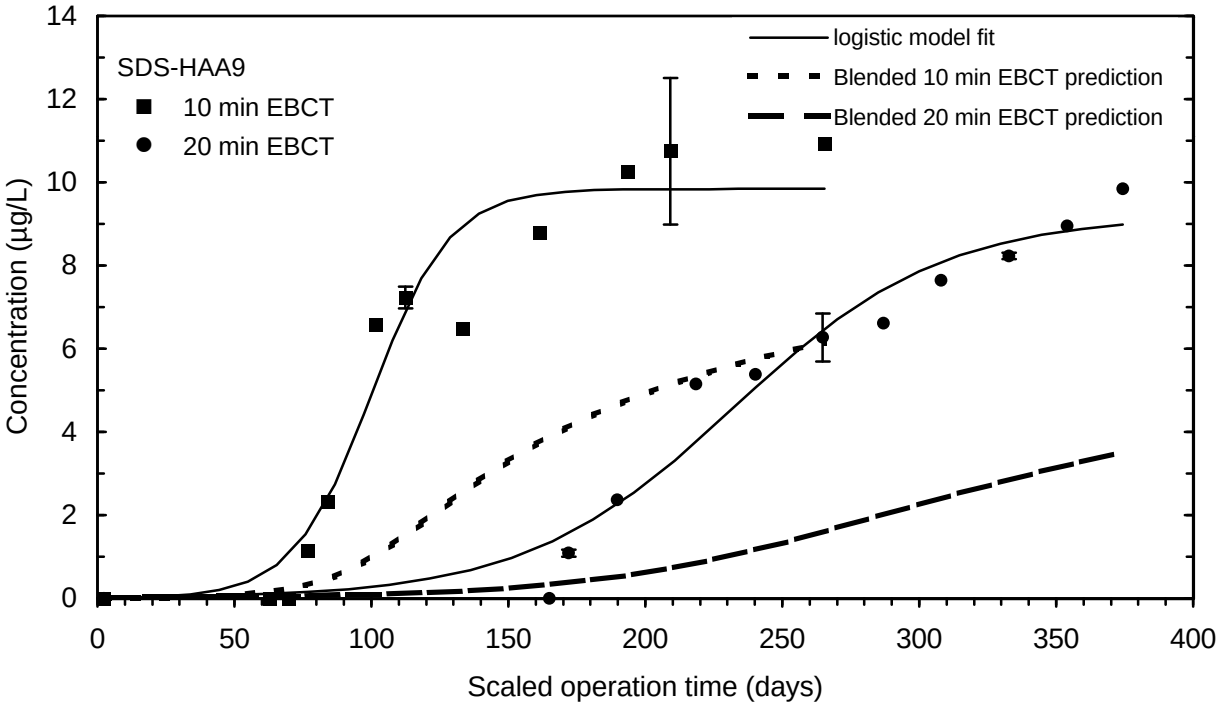


Figure 96 SDS-HAA9 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 1 (January)

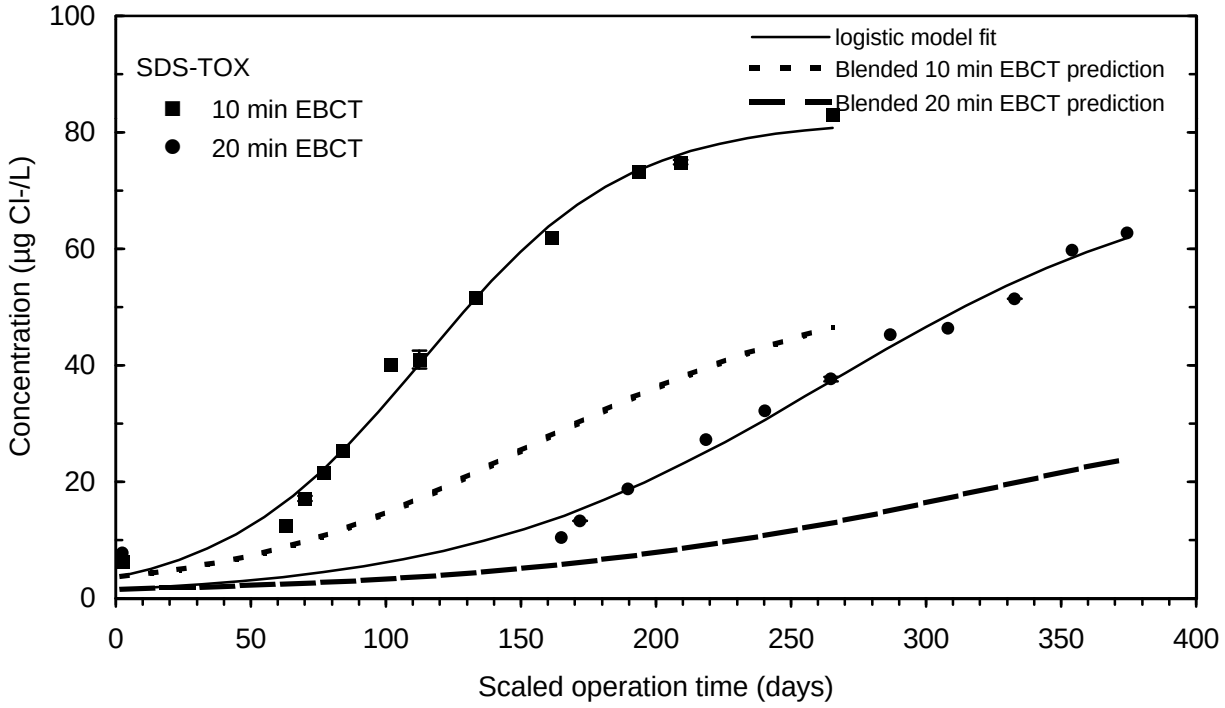


Figure 97 SDS-TOX breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 1 (January)

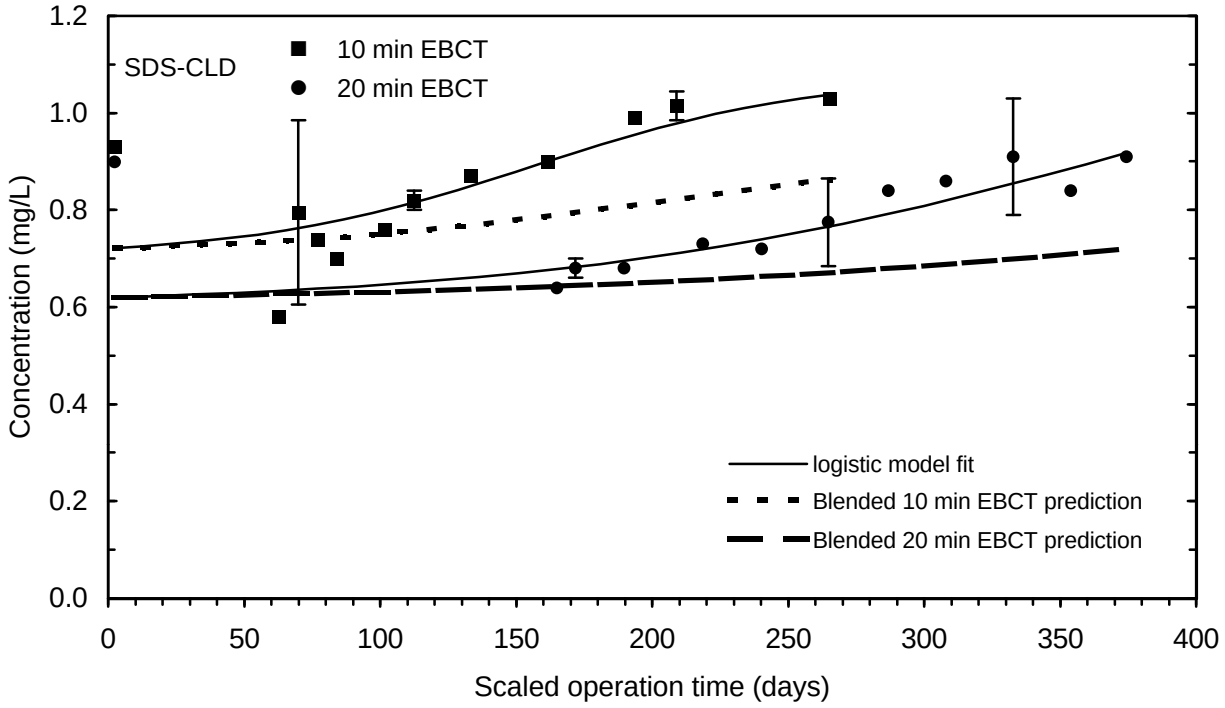


Figure 98 SDS-CLD breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 1 (January)

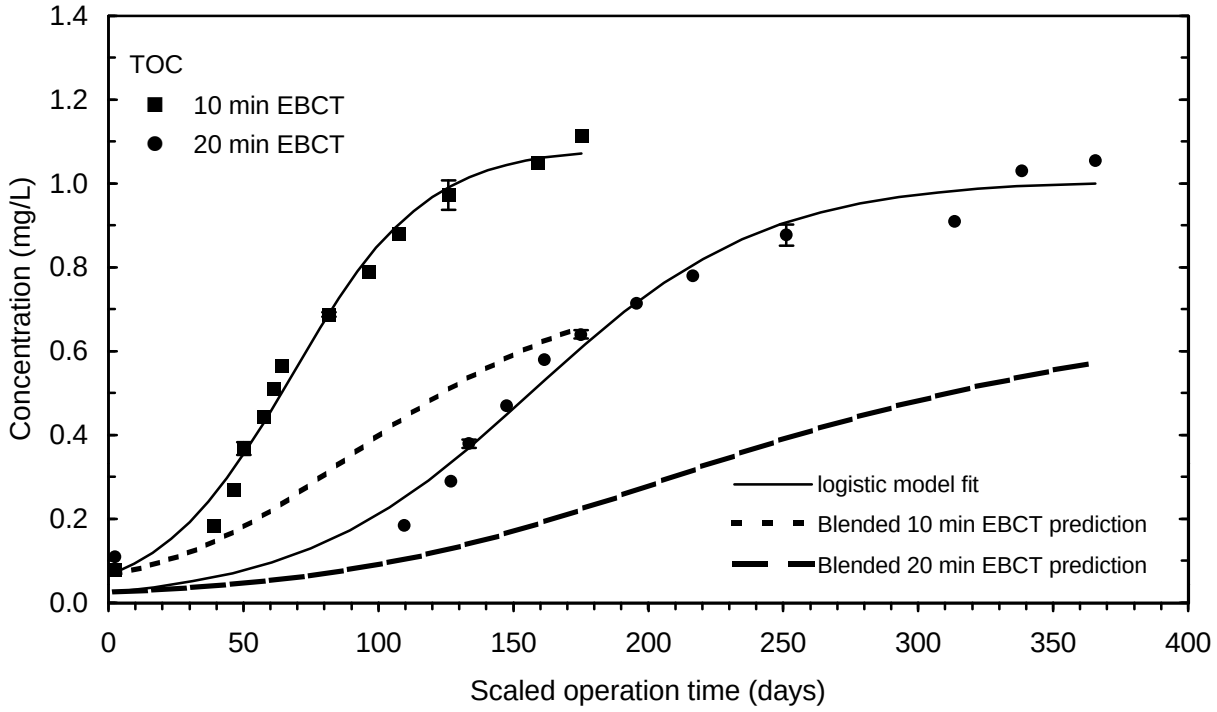


Figure 99 TOC breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 2 (April)

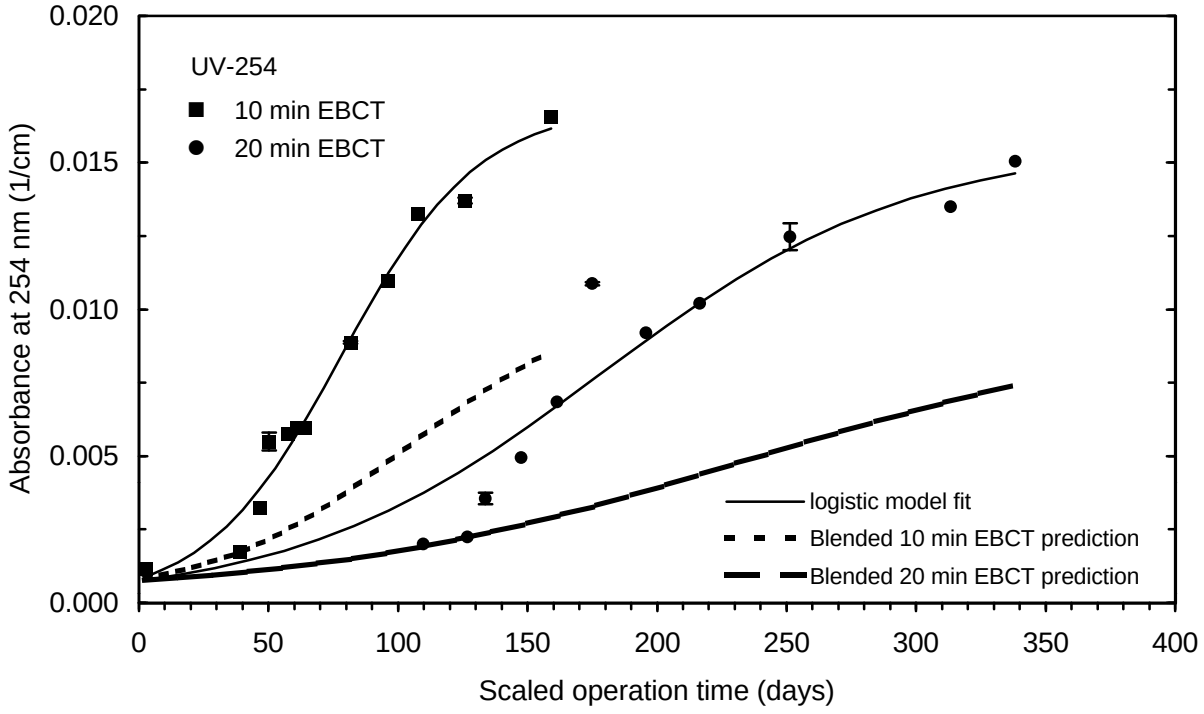


Figure 100 UV-254 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 2 (April)

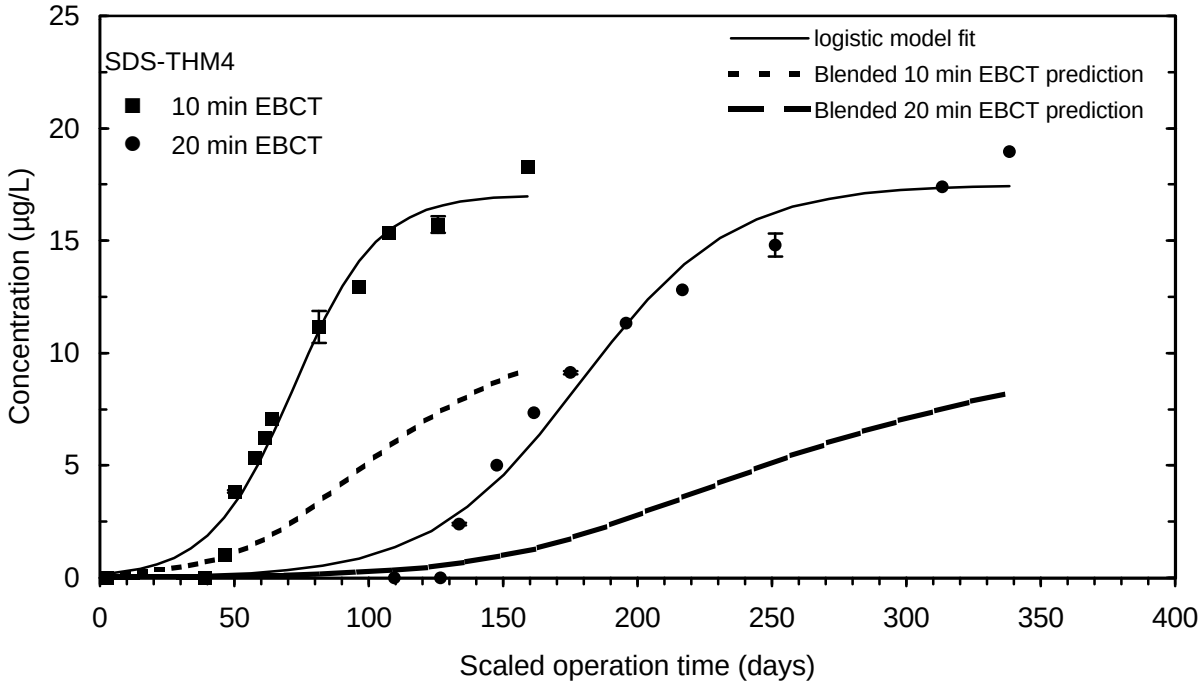


Figure 101 SDS-THM4 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 2 (April)

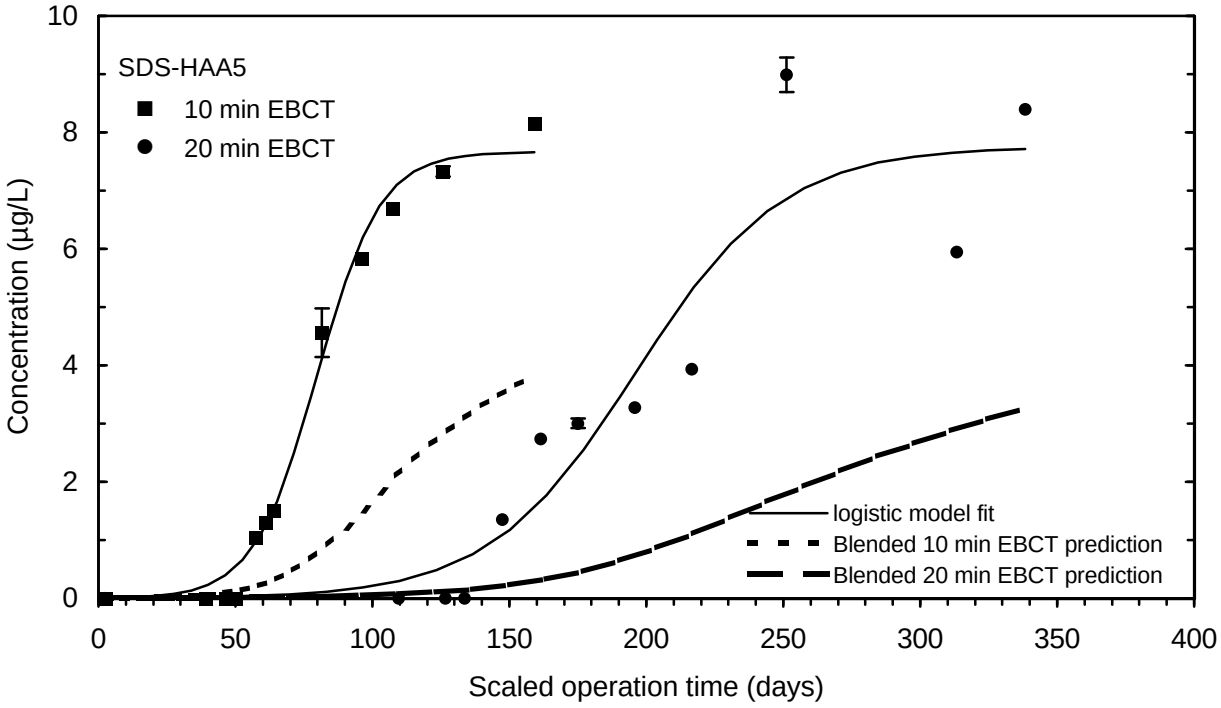


Figure 102 SDS-HAA5 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 2 (April)

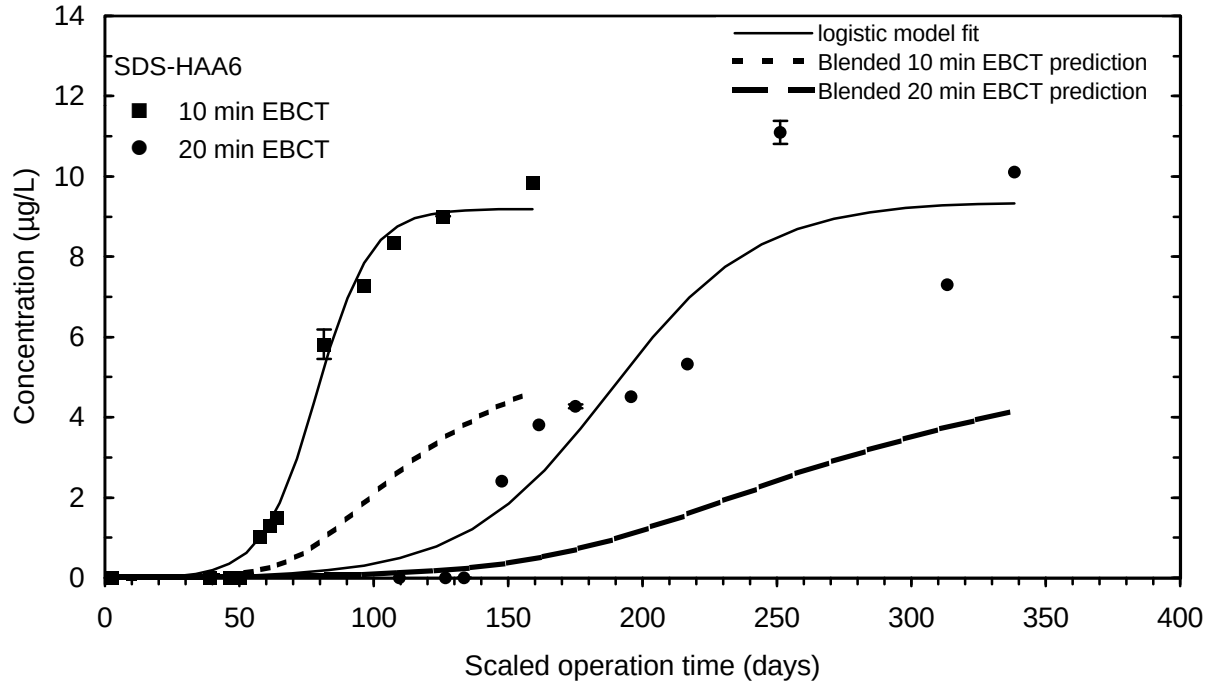


Figure 103 SDS-HAA6 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 2 (April)

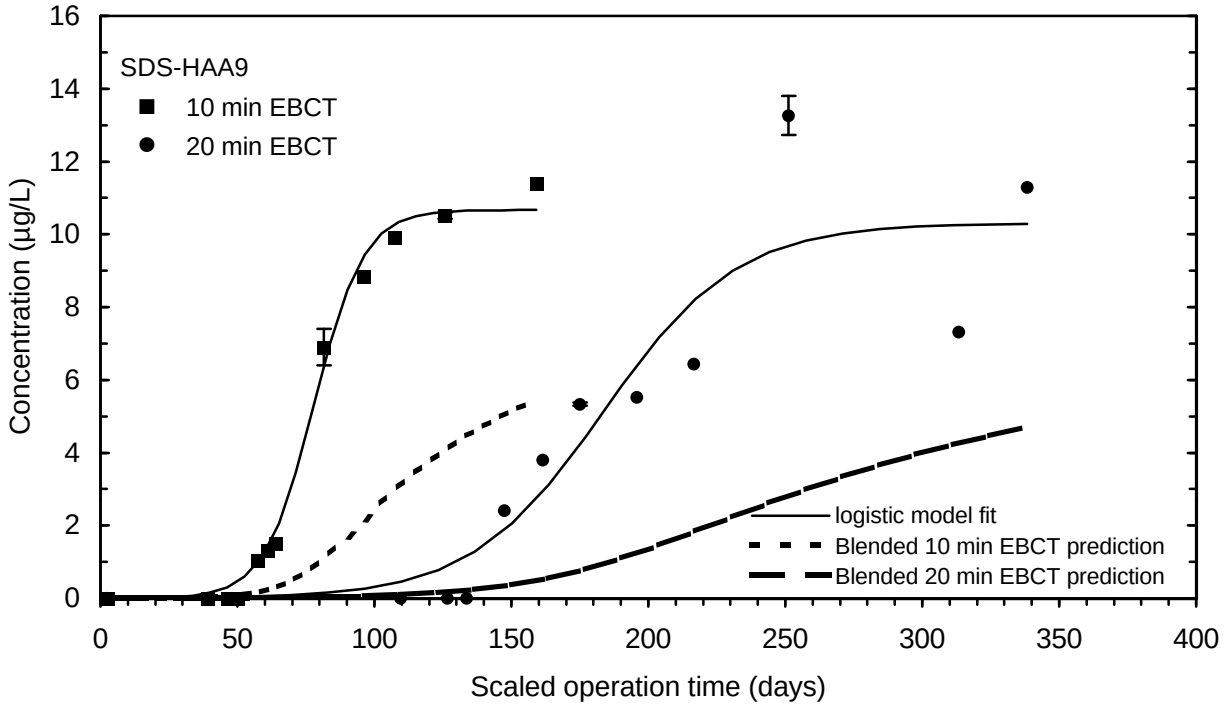


Figure 104 SDS-HAA9 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 2 (April)

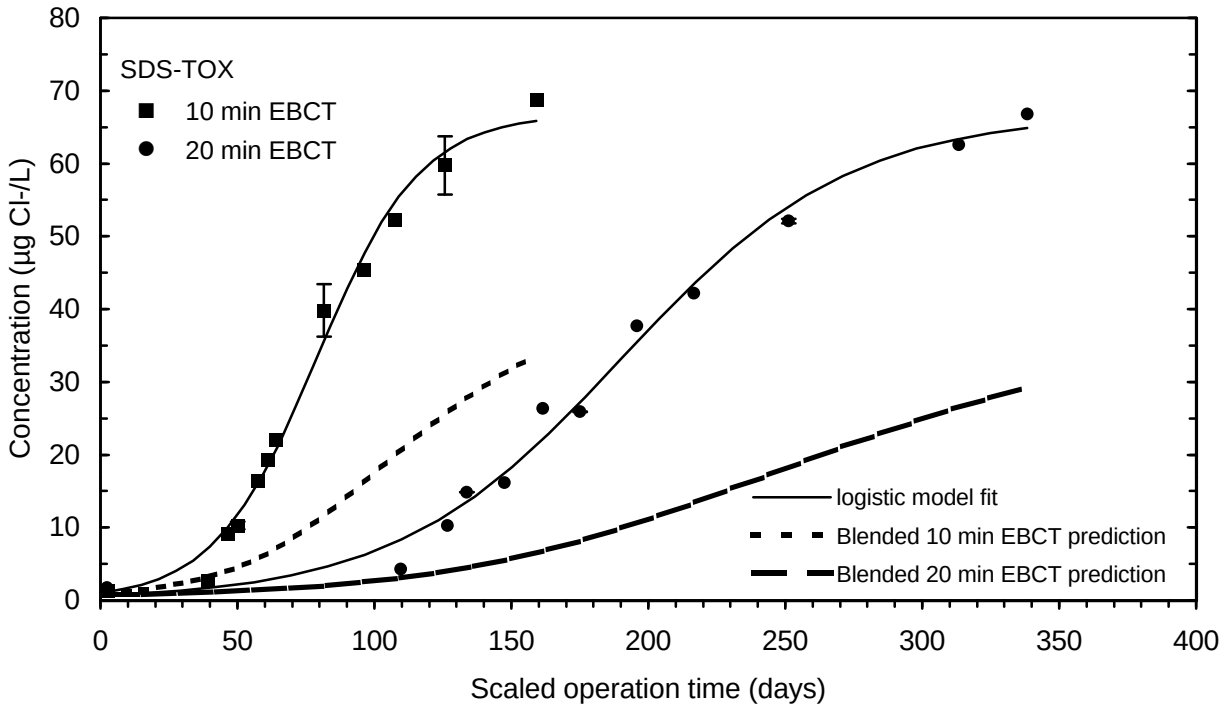


Figure 105 SDS-TOX breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 2 (April)

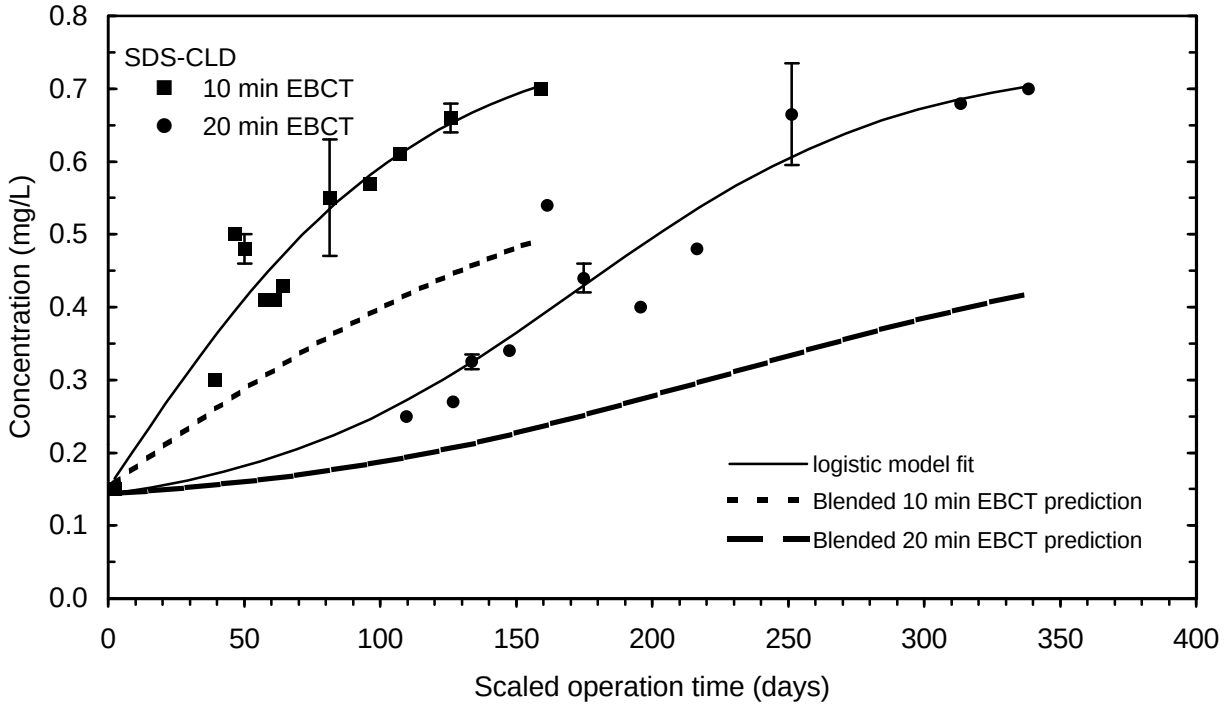


Figure 106 SDS-CLD breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 2 (April)

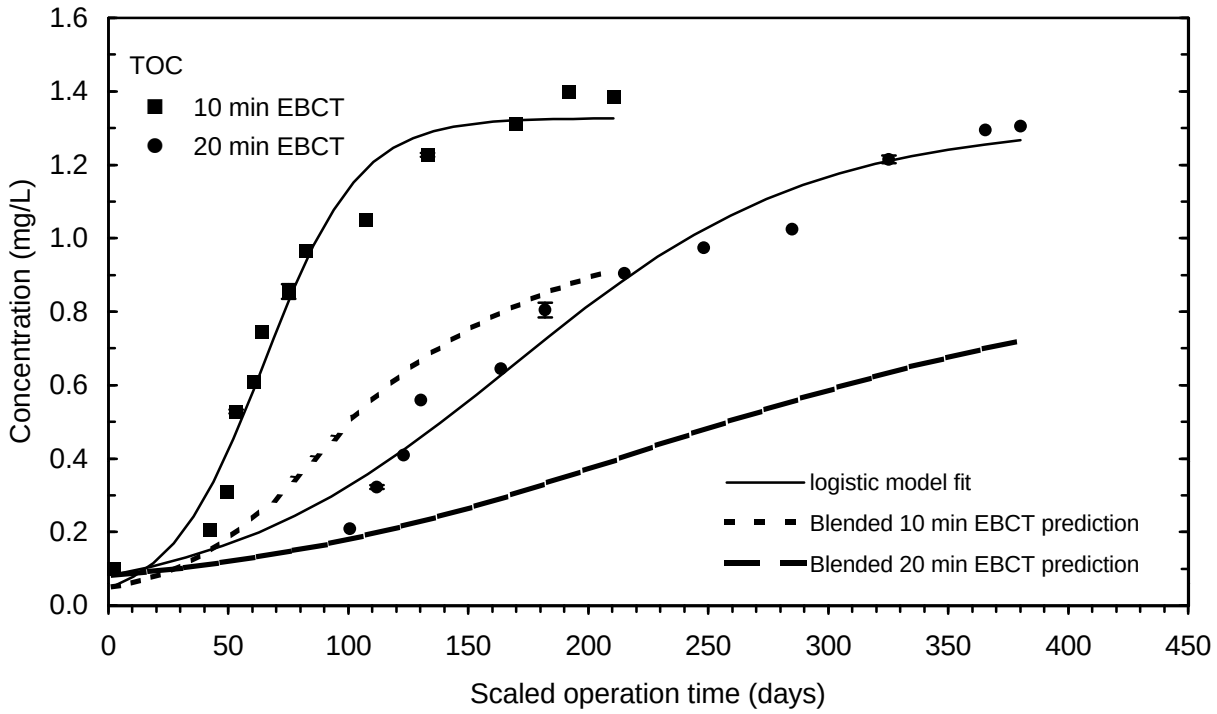


Figure 107 TOC breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 3 (June)

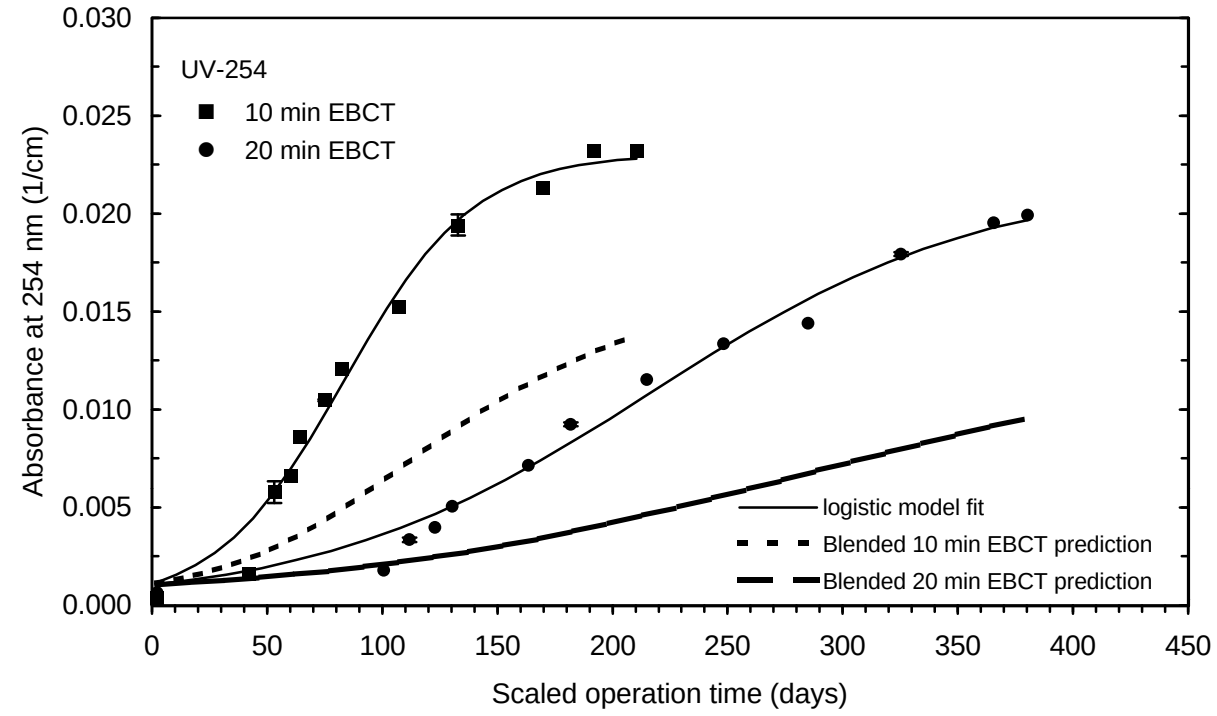


Figure 108 UV-254 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 3 (June)

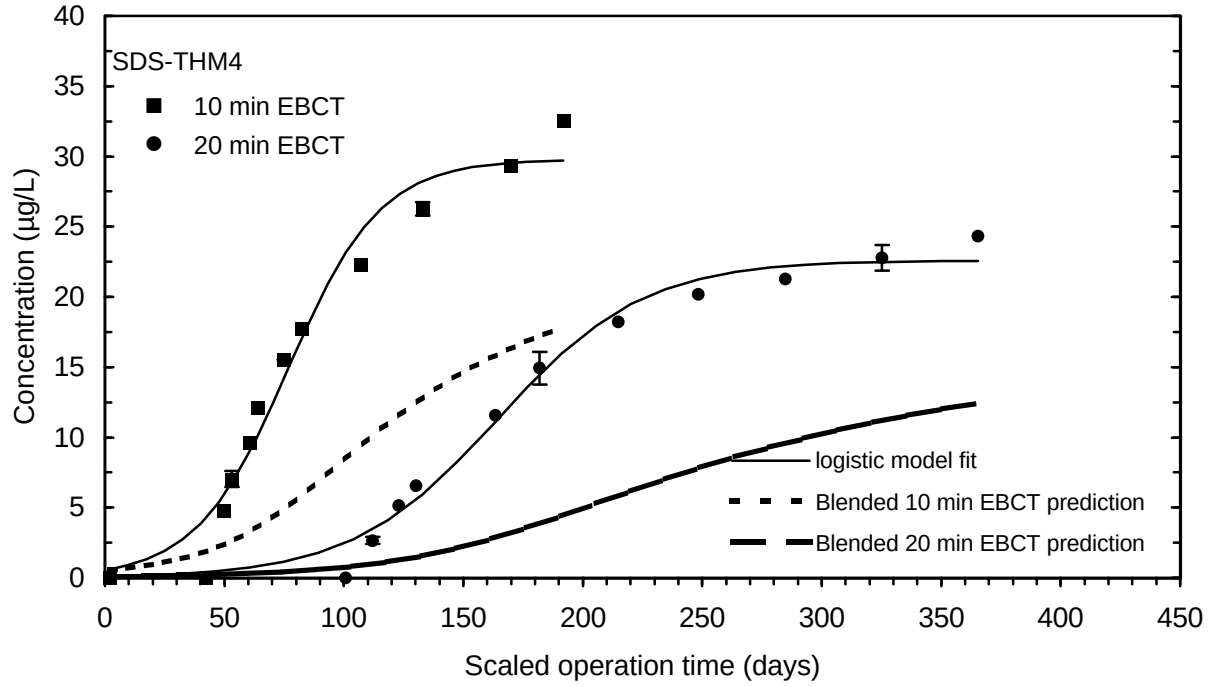


Figure 109 SDS-THM4 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 3 (June)

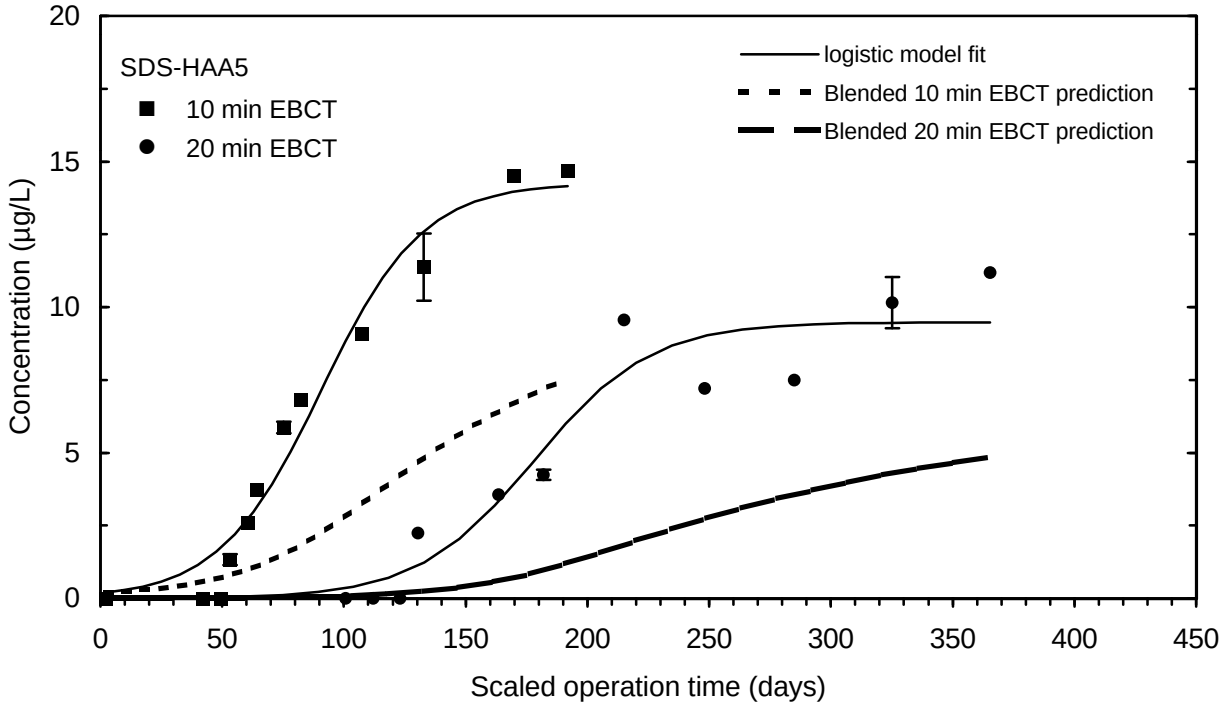


Figure 110 SDS-HAA5 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 3 (June)

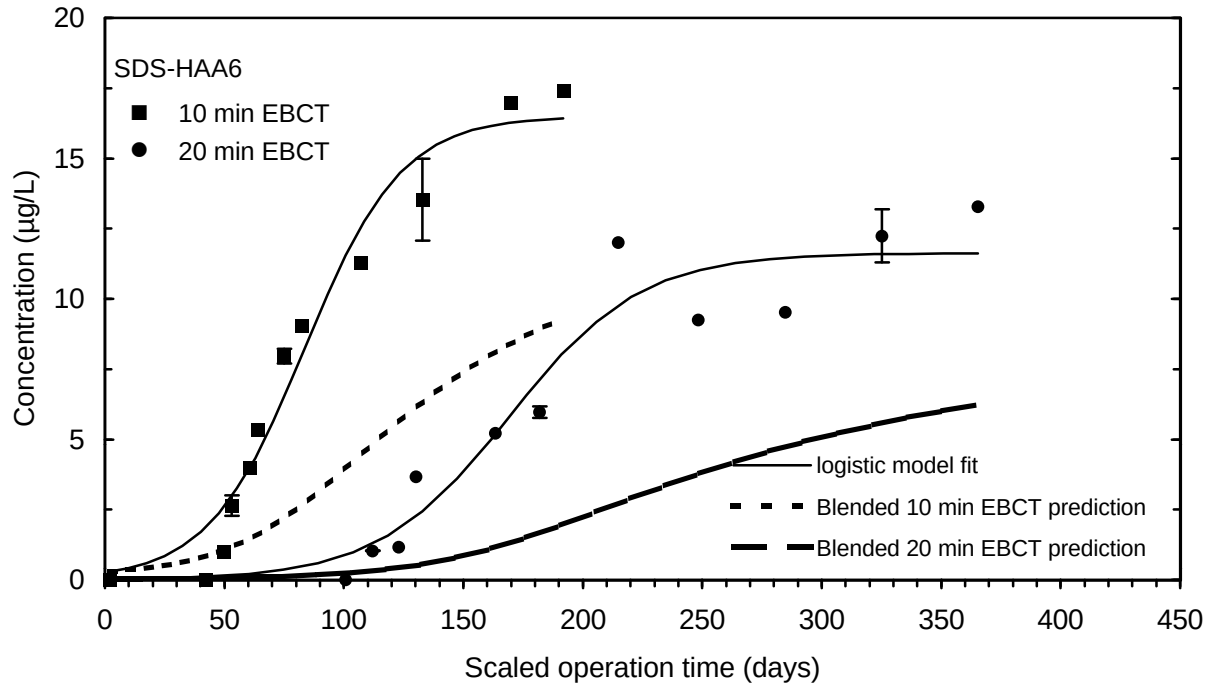


Figure 111 SDS-HAA6 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 3 (June)

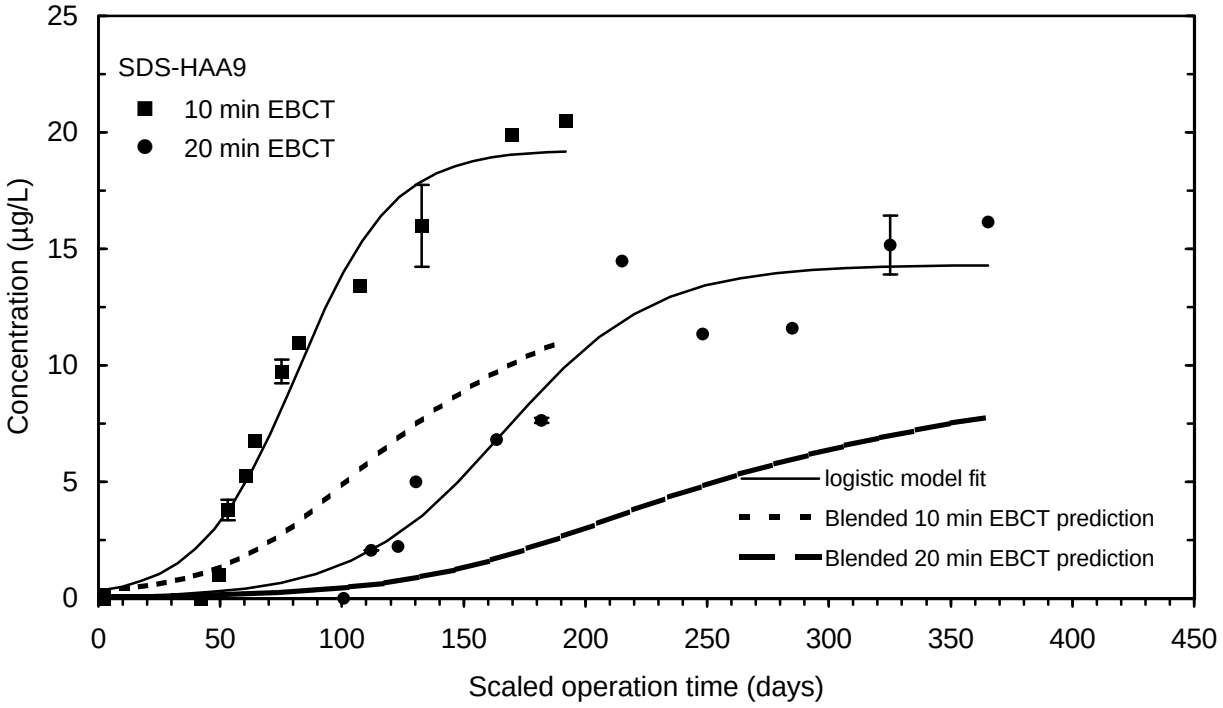


Figure 112 SDS-HAA9 breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 3 (June)

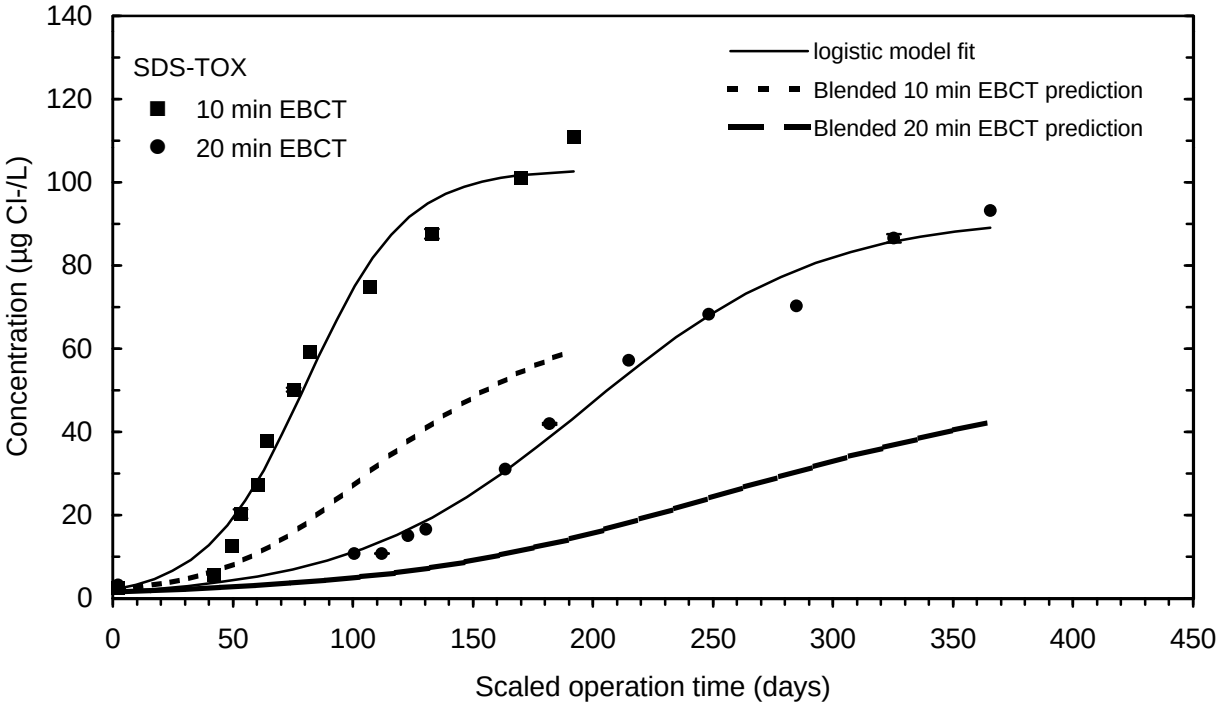


Figure 113 SDS-TOX breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 3 (June)

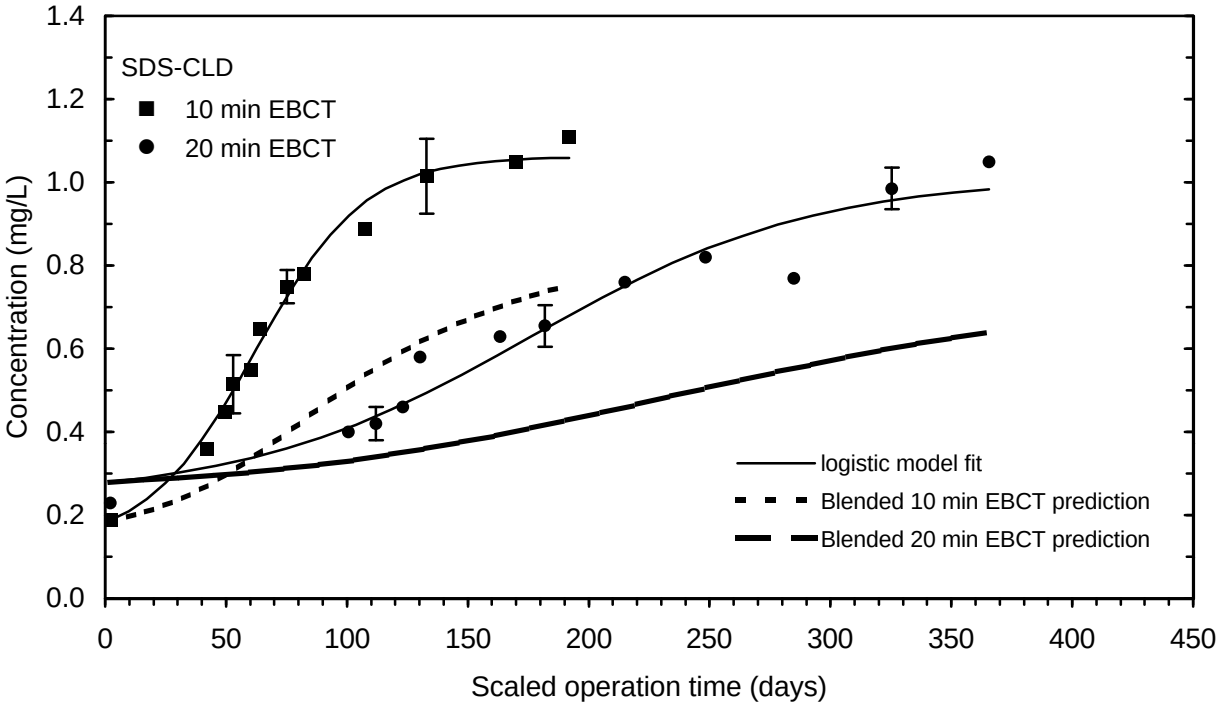


Figure 114 SDS-CLD breakthrough and effluent blending for 10 and 20 minute EBCT contactors during session 3 (June)

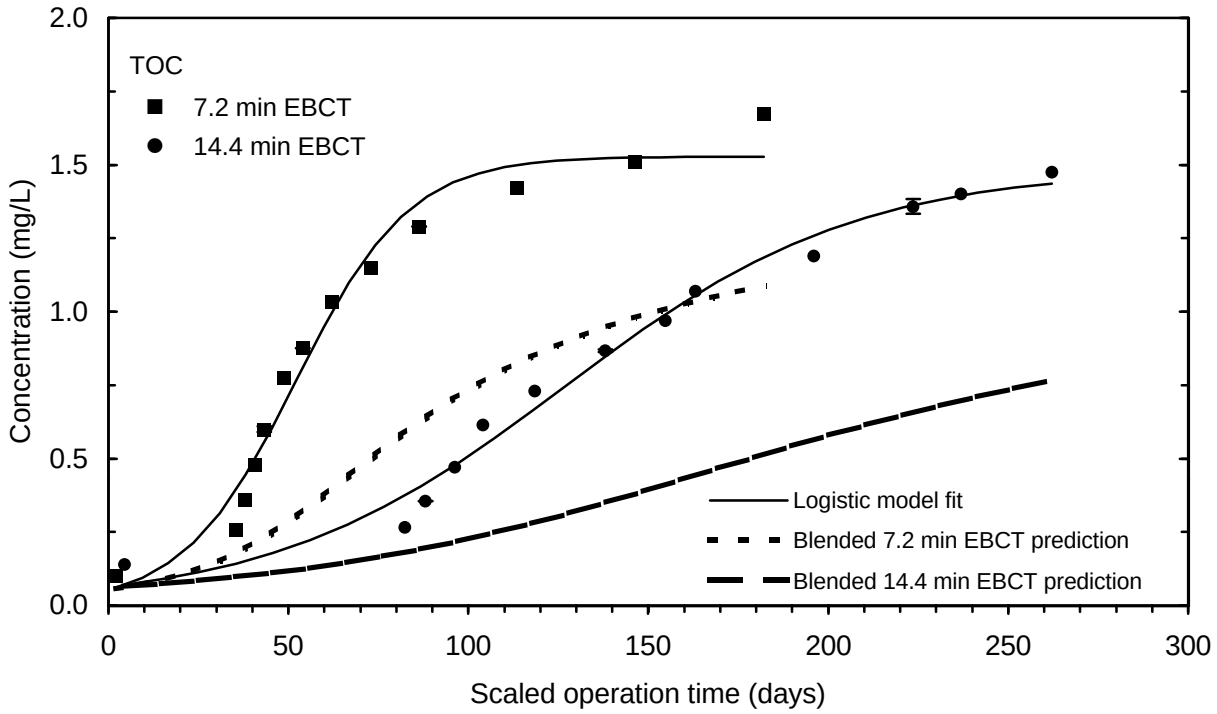


Figure 115 TOC breakthrough and effluent blending for 7.2 and 14.4 minute EBCT contactors during session 4 (October)

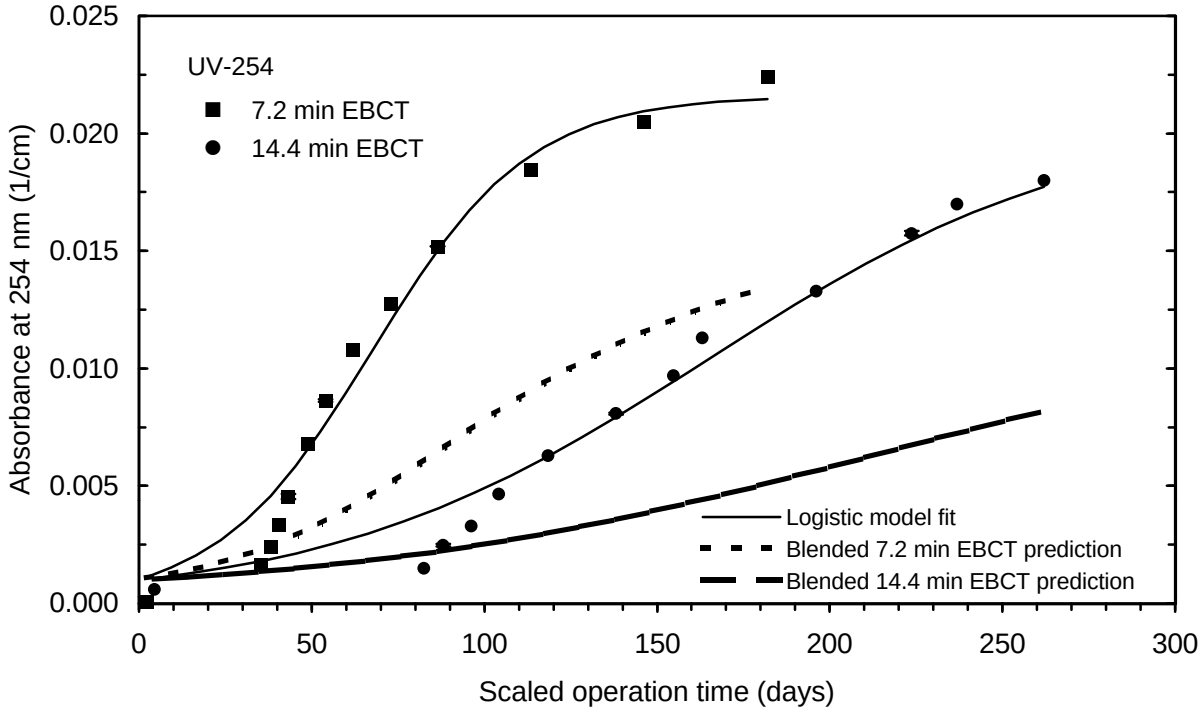


Figure 116 UV-254 breakthrough and effluent blending for 7.2 and 14.4 minute EBCT contactors during session 4 (October)

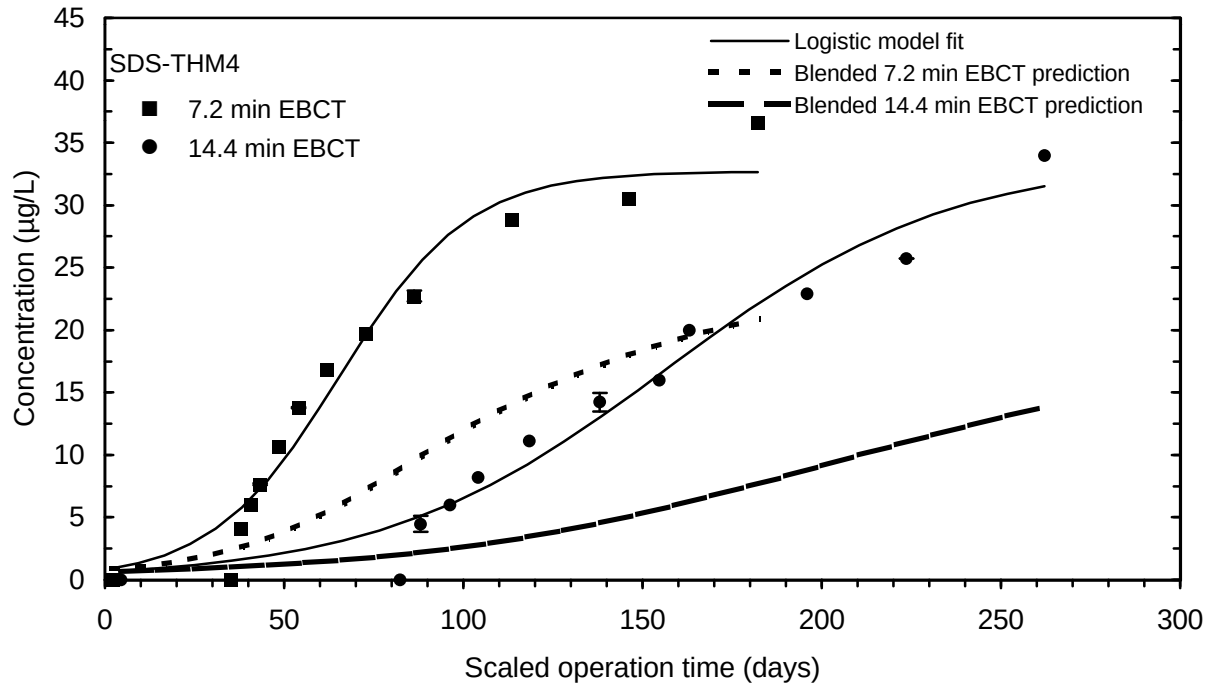


Figure 117 SDS-THM4 breakthrough and effluent blending for 7.2 and 14.4 minute EBCT contactors during session 4 (October)

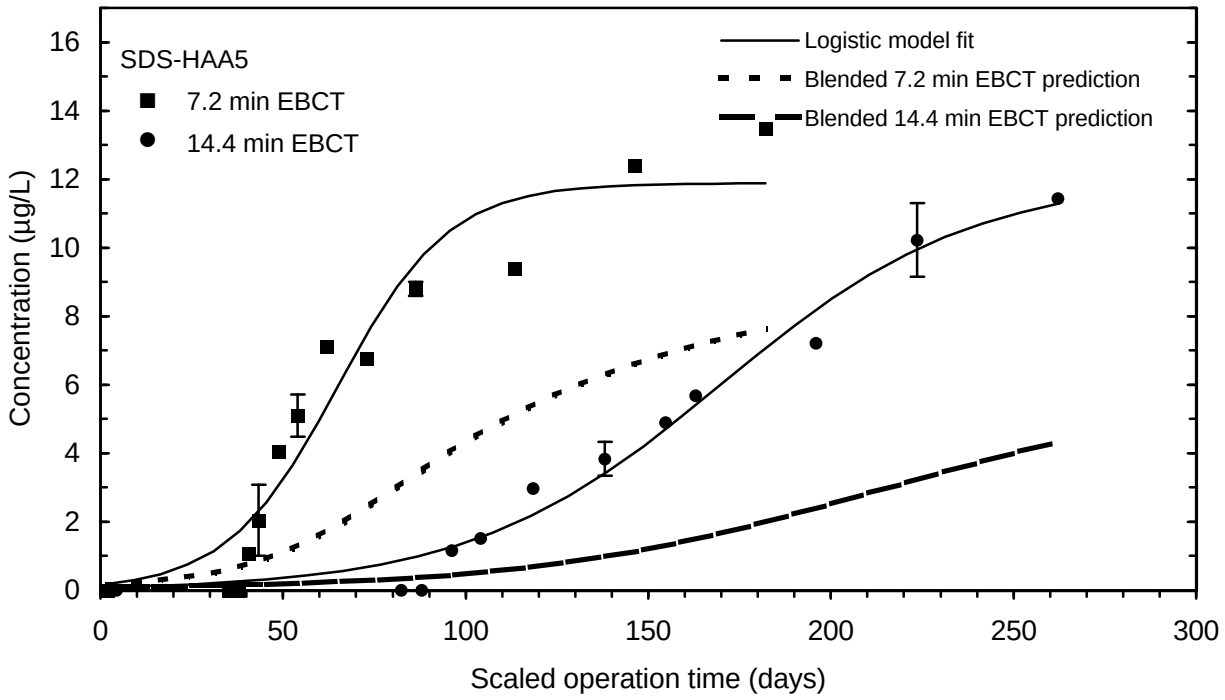


Figure 118 SDS-HAA5 breakthrough and effluent blending for 7.2 and 14.4 minute EBCT contactors during session 4 (October)

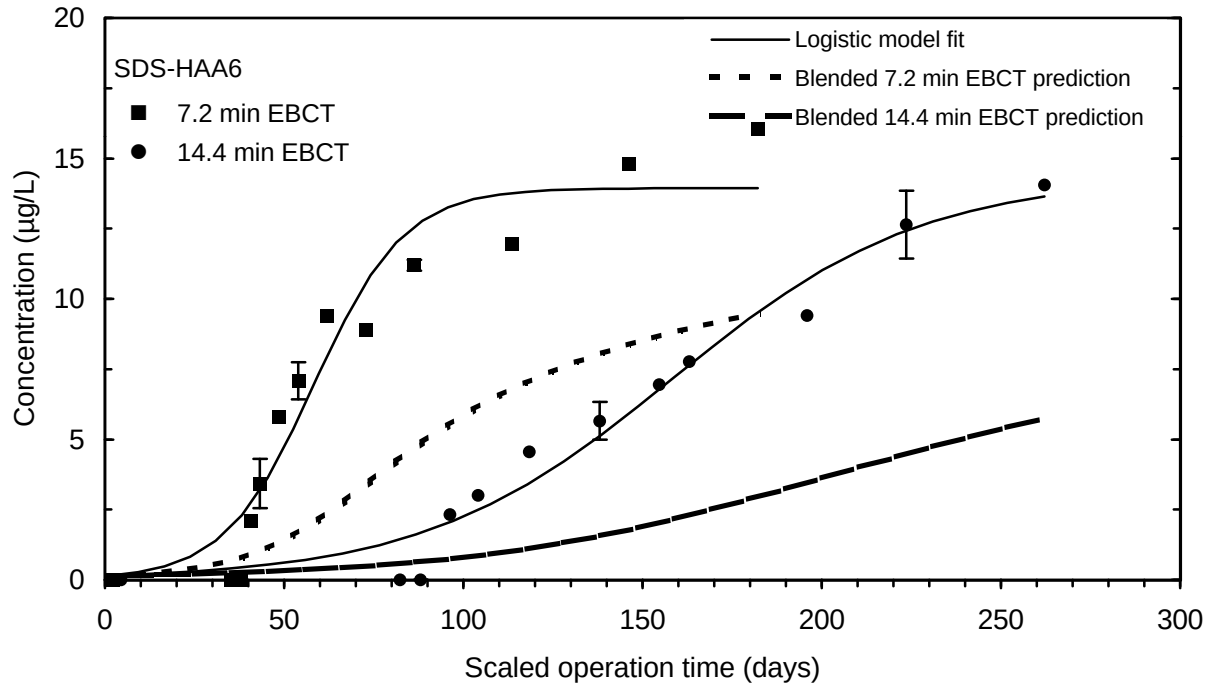


Figure 119 SDS-HAA6 breakthrough and effluent blending for 7.2 and 14.4 minute EBCT contactors during session 4 (October)

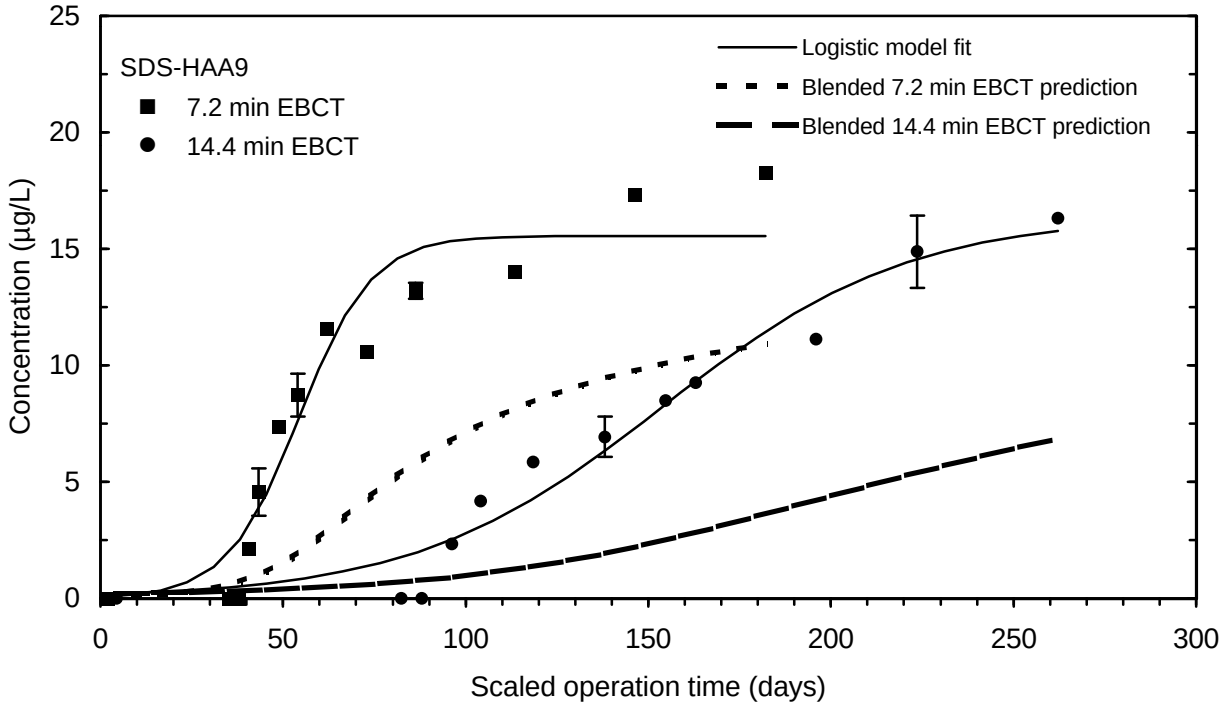


Figure 120 SDS-HAA9 breakthrough and effluent blending for 7.2 and 14.4 minute EBCT contactors during session 4 (October)

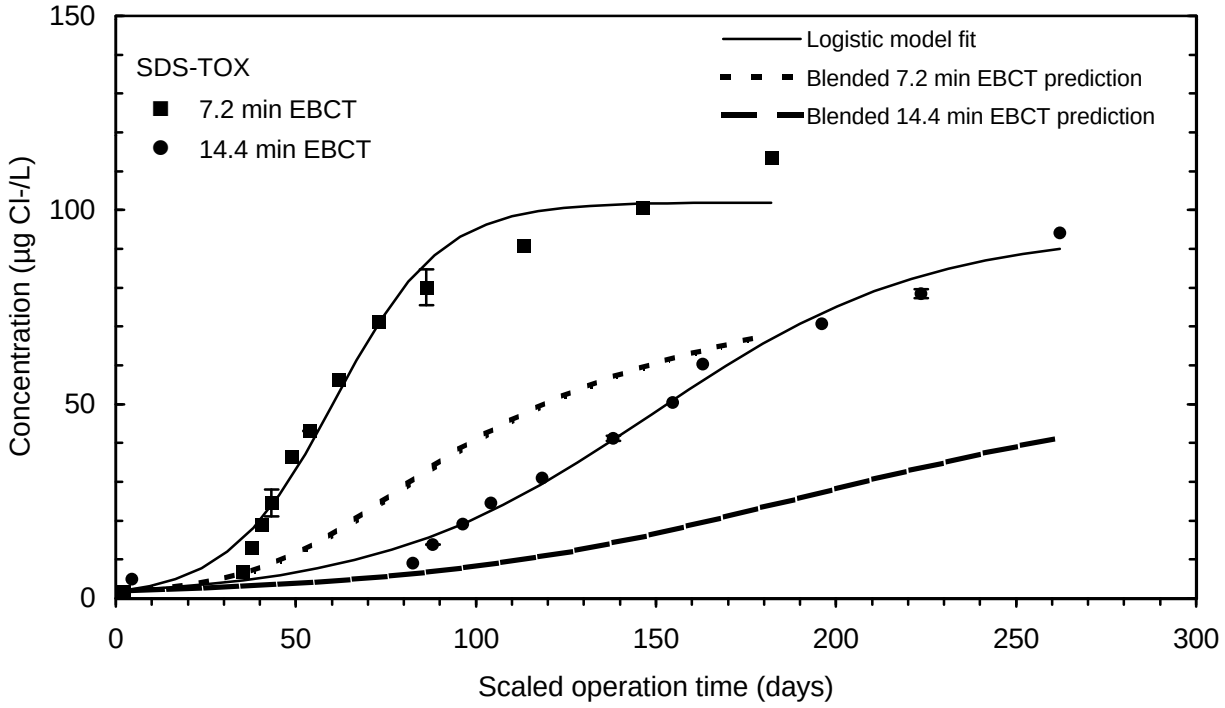


Figure 121 SDS-TOX breakthrough and effluent blending for 7.2 and 14.4 minute EBCT contactors during session 4 (October)

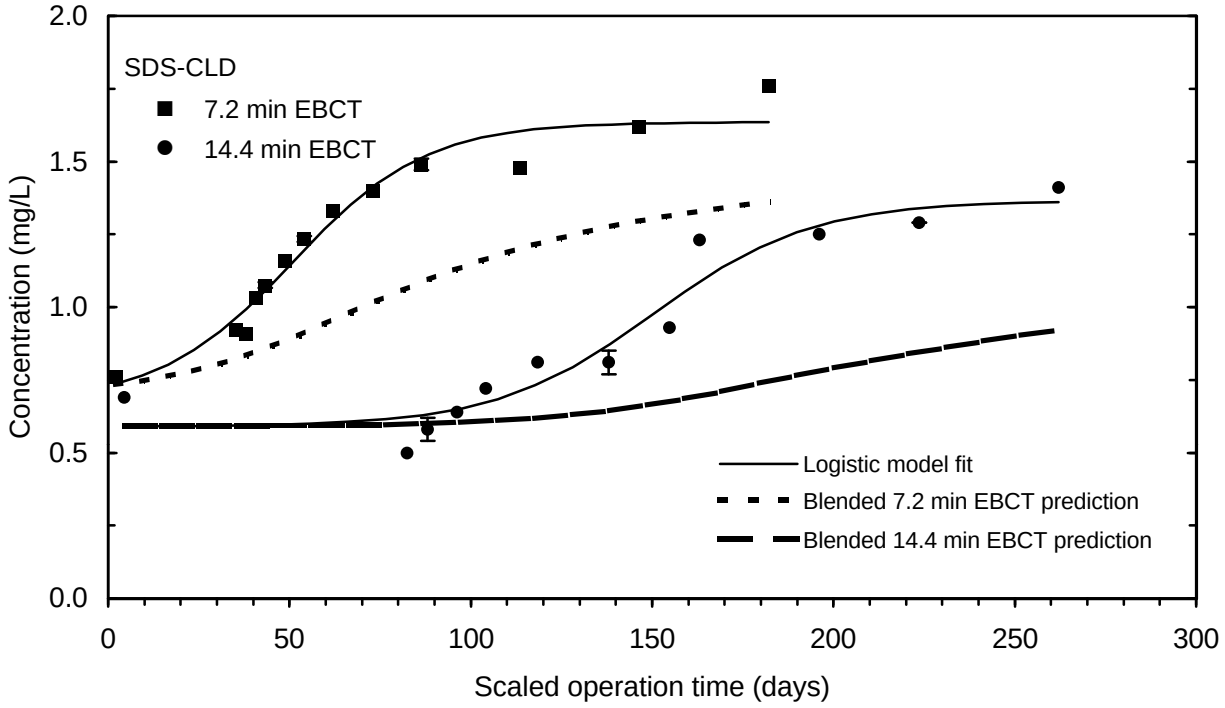


Figure 122 SDS-CLD breakthrough and effluent blending for 7.2 and 14.4 minute EBCT contactors during session 4 (October)

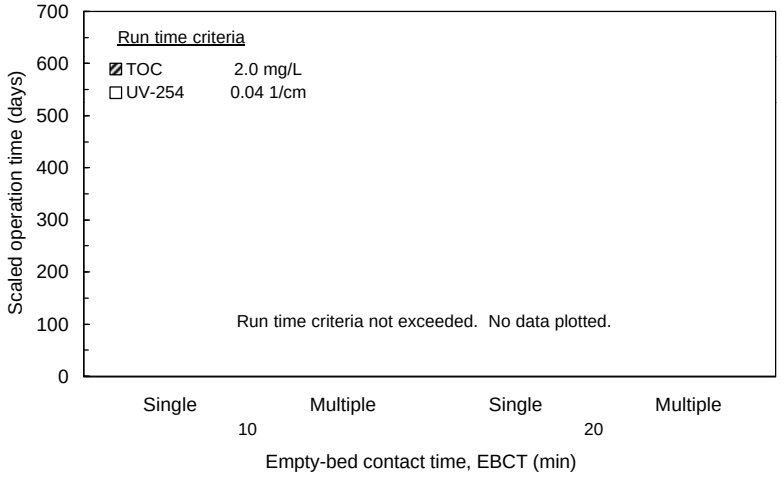


Figure 123 GAC run times based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (high) during session 1 (January)

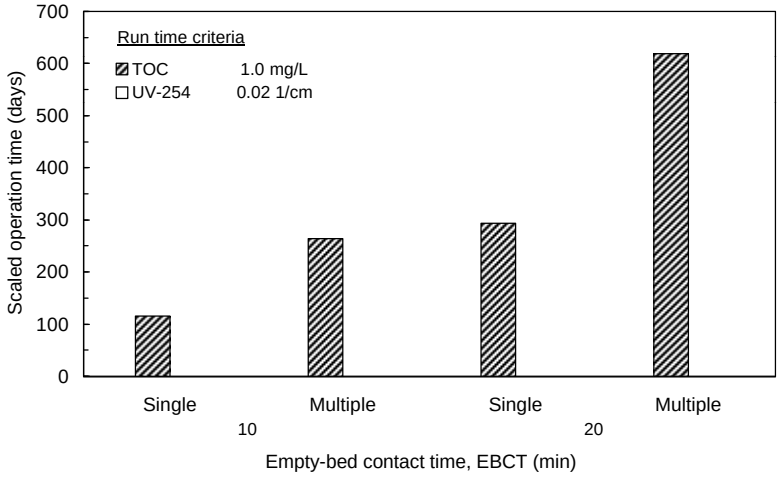


Figure 124 GAC run times based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (low) during session 1 (January)

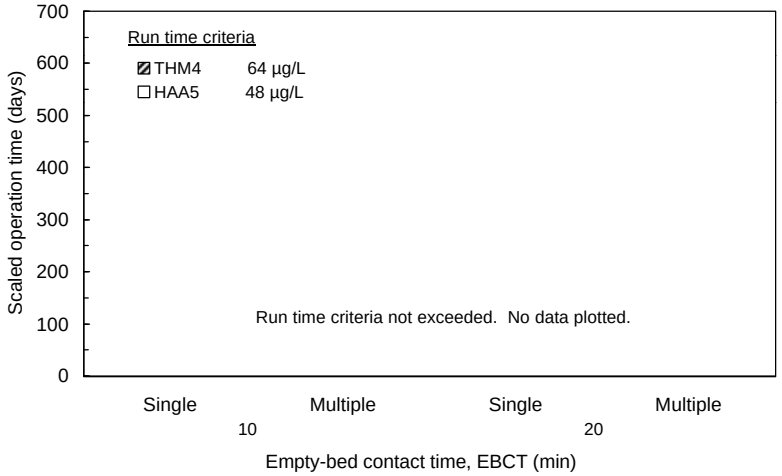


Figure 125 GAC run times based on single contactor breakthrough and effluent blending for Stage 1 THM4 and HAA5 effluent criteria during session 1 (January)

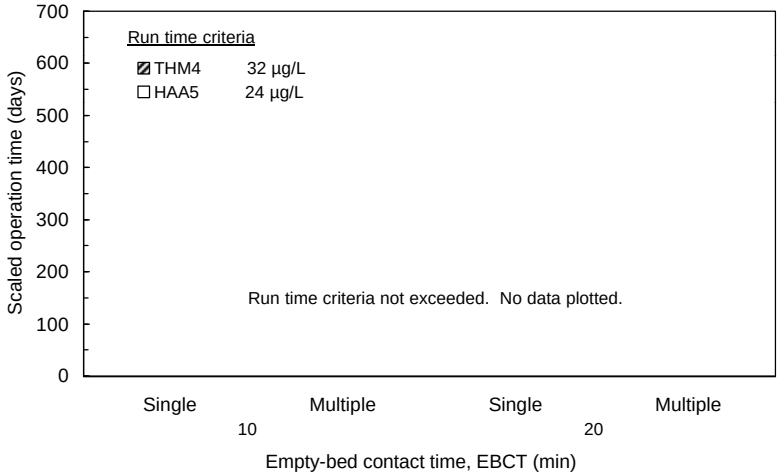


Figure 126 GAC run times based on single contactor breakthrough and effluent blending for Stage 2 THM4 and HAA5 effluent criteria during session 1 (January)

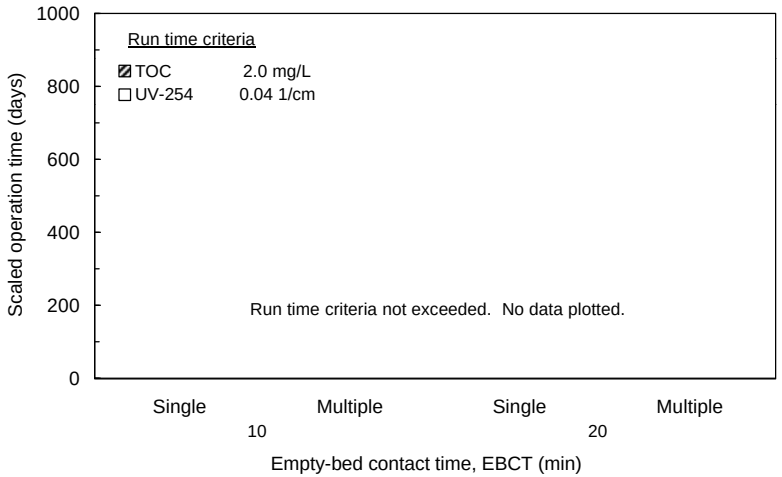


Figure 127 GAC run times based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (high) during session 2 (April)

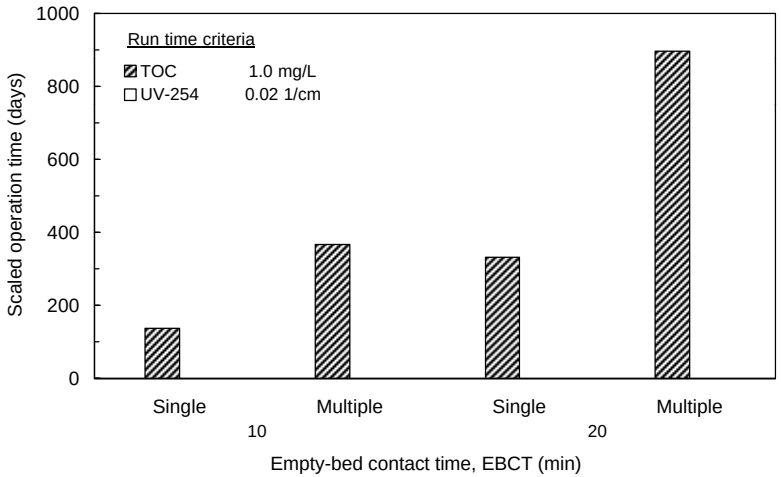


Figure 128 GAC run times based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (low) during session 2 (April)

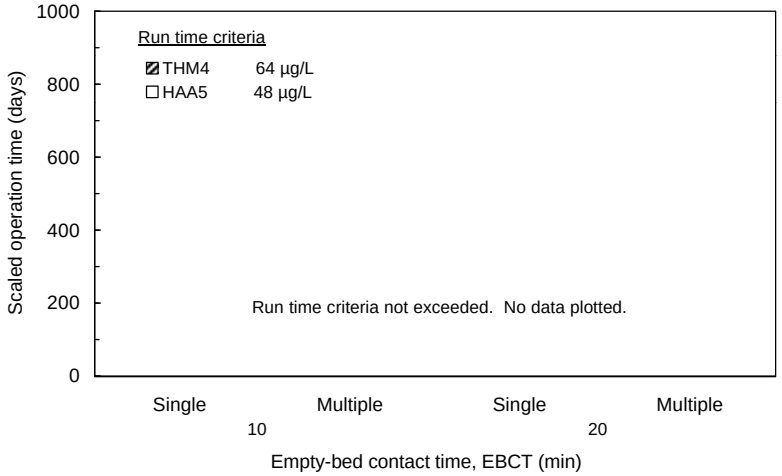


Figure 129 GAC run times based on single contactor breakthrough and effluent blending for Stage 1 THM4 and HAA5 effluent criteria during session 2 (April)

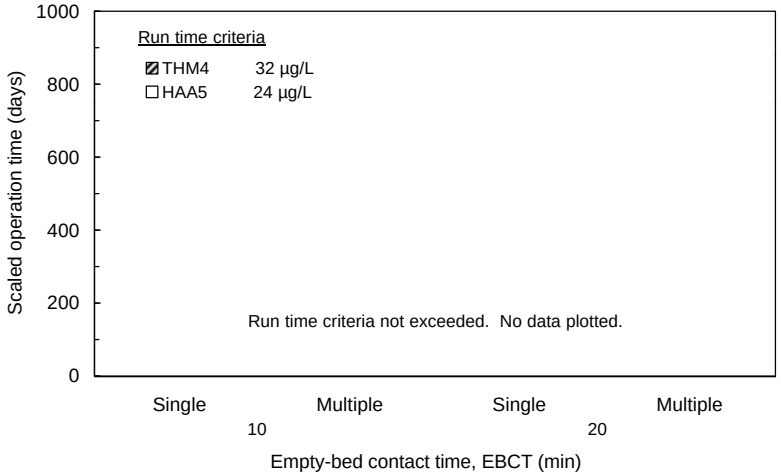


Figure 130 GAC run times based on single contactor breakthrough and effluent blending for Stage 2 THM4 and HAA5 effluent criteria during session 2 (April)

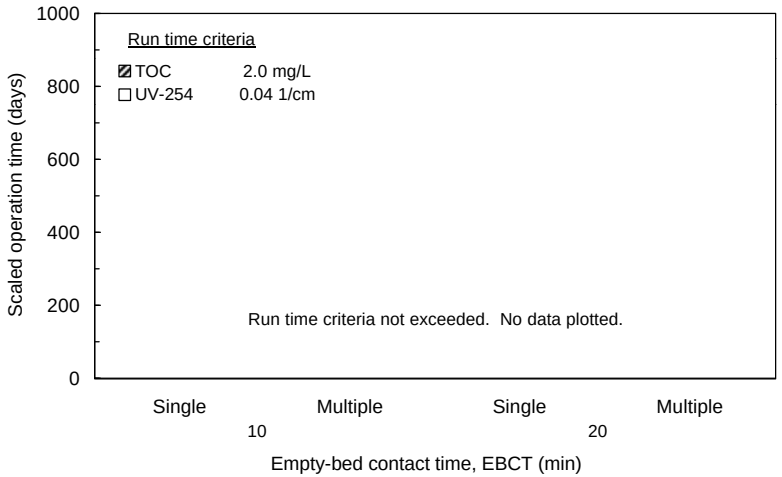


Figure 131 GAC run times based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (high) during session 3 (June)

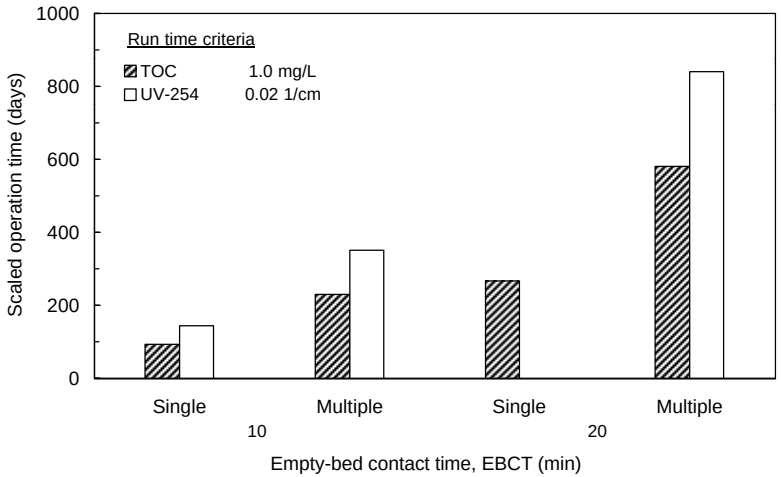


Figure 132 GAC run times based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (low) during session 3 (June)

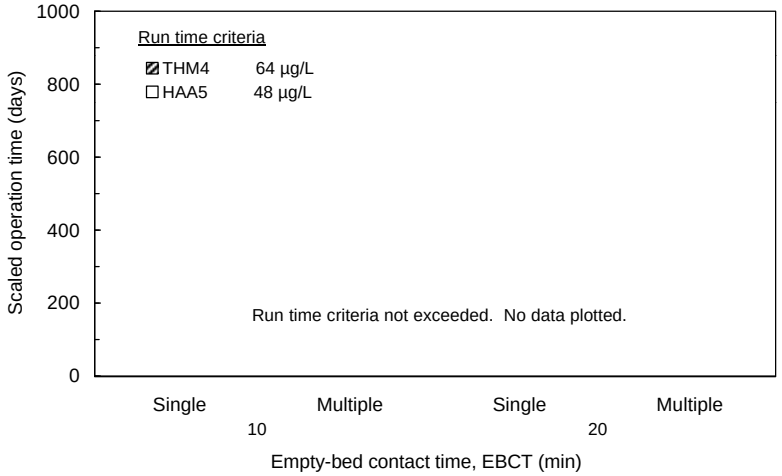


Figure 133 GAC run times based on single contactor breakthrough and effluent blending for Stage 1 THM4 and HAA5 effluent criteria during session 3 (June)

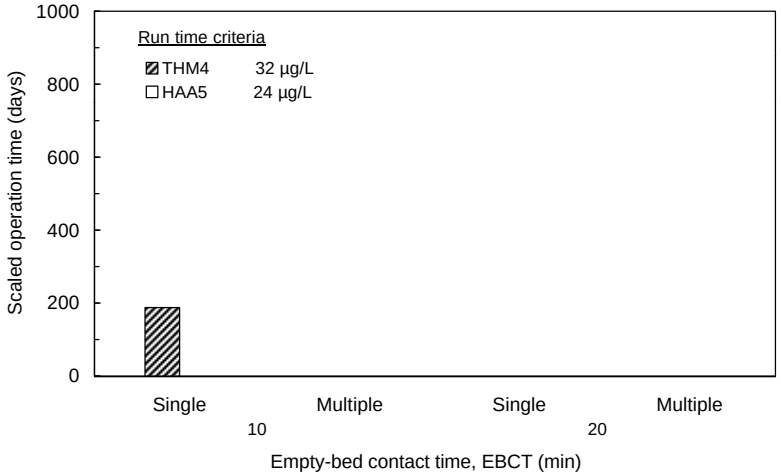


Figure 134 GAC run times based on single contactor breakthrough and effluent blending for Stage 2 THM4 and HAA5 effluent criteria during session 3 (June)

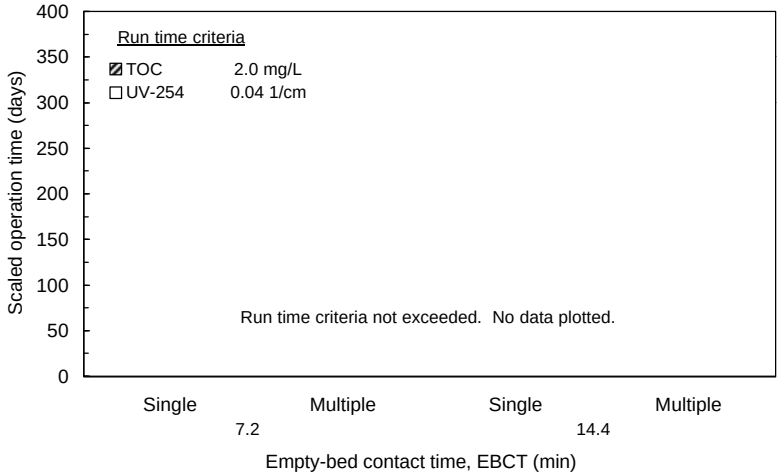


Figure 135 GAC run times based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (high) during session 4 (October)

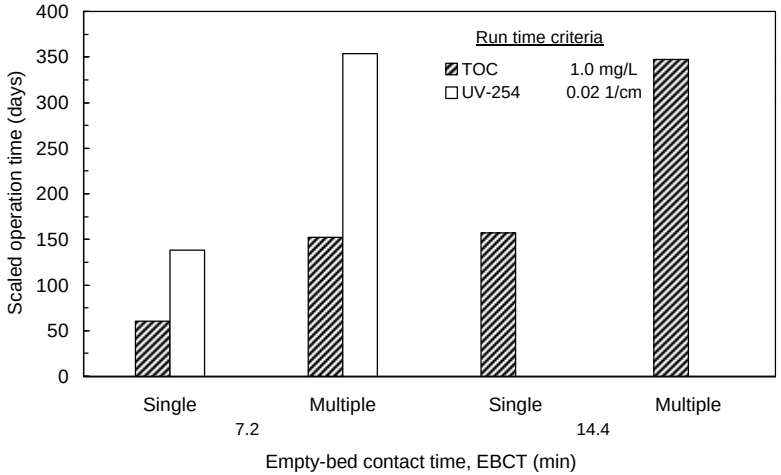


Figure 136 GAC run times based on single contactor breakthrough and effluent blending for TOC and UV-254 effluent criteria (low) during session 4 (October)

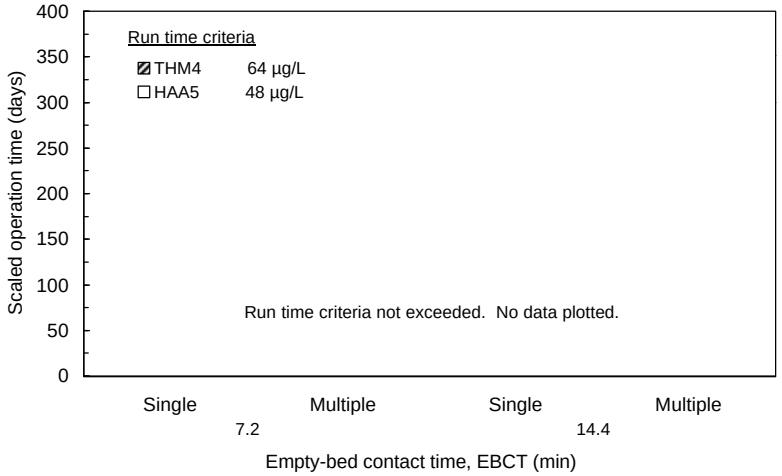


Figure 137 GAC run times based on single contactor breakthrough and effluent blending for Stage 1 THM4 and HAA5 effluent criteria during session 4 (October)

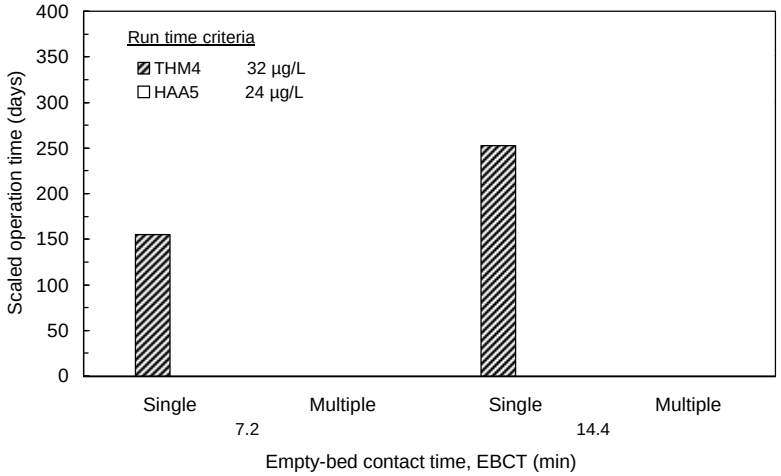


Figure 138 GAC run times based on single contactor breakthrough and effluent blending for Stage 2 THM4 and HAA5 effluent criteria during session 4 (October)

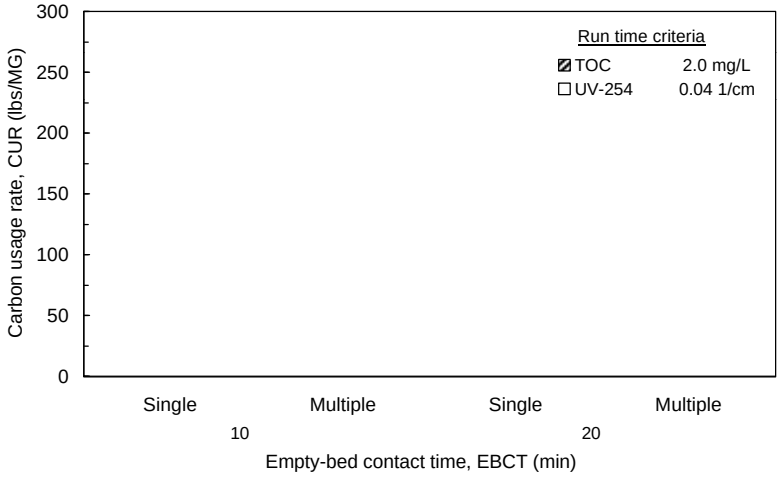


Figure 139 Carbon usage rates based on single contactors and effluent blending for TOC and UV-254 effluent criteria (high) during session 1 (January)

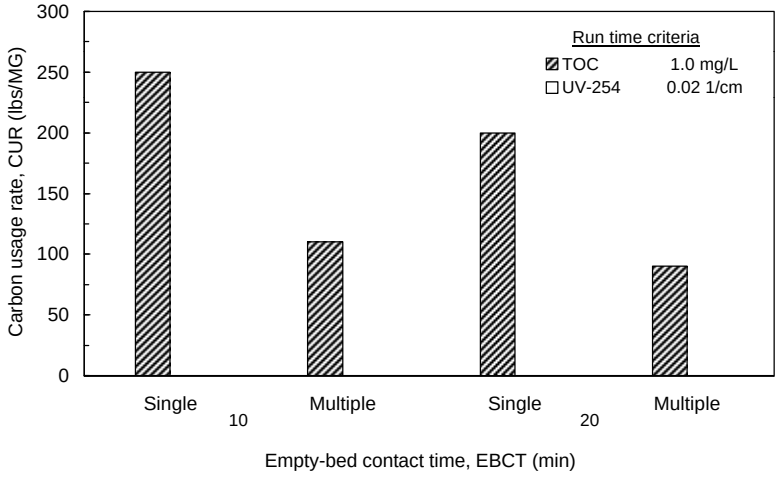


Figure 140 Carbon usage rates based on single contactors and effluent blending for TOC and UV-254 effluent criteria (low) during session 1 (January)

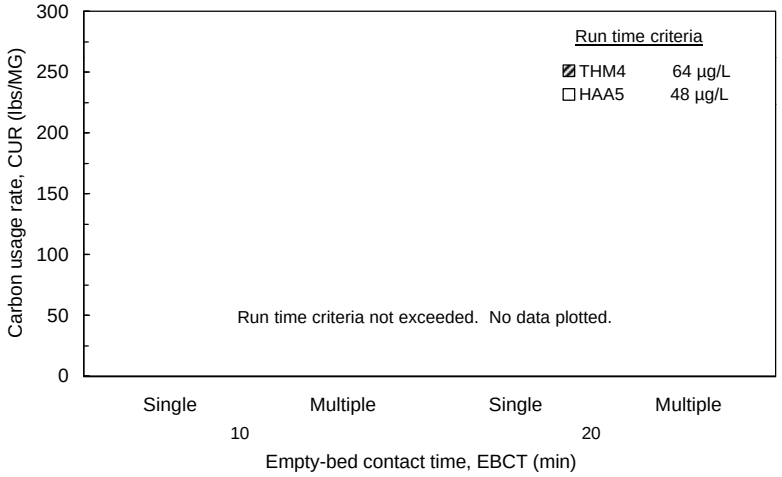


Figure 141 Carbon usage rates based on single contactors and effluent blending for Stage 1 THM4 and HAA5 effluent criteria during session 1 (January)

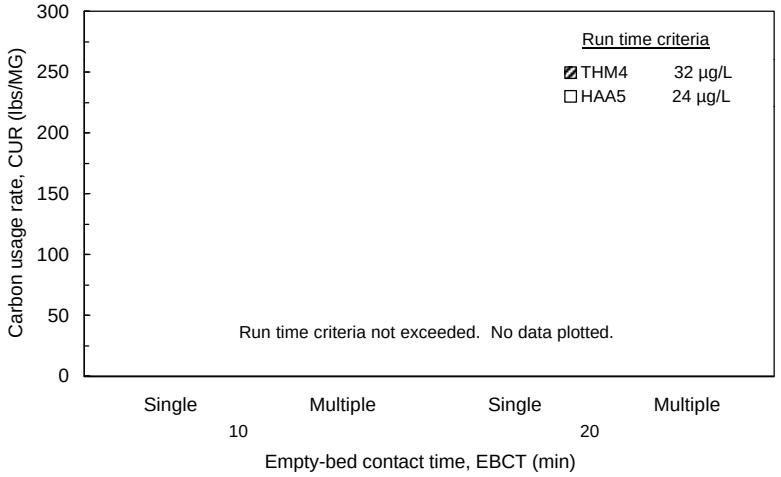


Figure 142 Carbon usage rates based on single contactors and effluent blending for Stage 2 THM4 and HAA5 effluent criteria during session 1 (January)

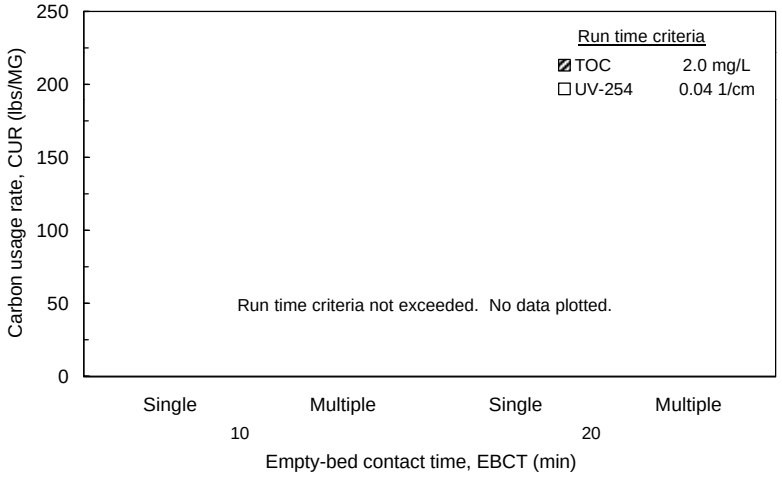


Figure 143 Carbon usage rates based on single contactors and effluent blending for TOC and UV-254 effluent criteria (high) during session 2 (April)

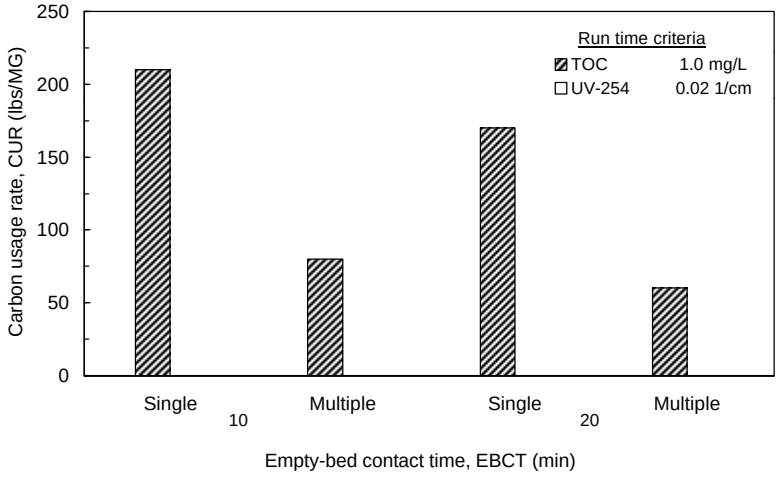


Figure 144 Carbon usage rates based on single contactors and effluent blending for TOC and UV-254 effluent criteria (low) during session 2 (April)

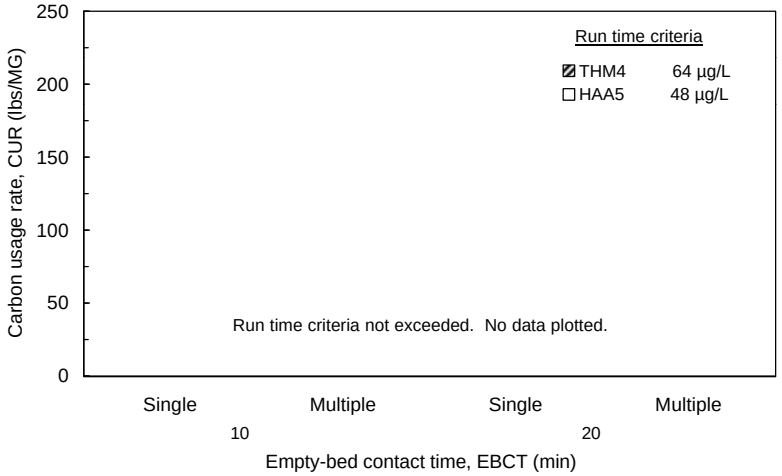


Figure 145 Carbon usage rates based on single contactors and effluent blending for Stage 1 THM4 and HAA5 effluent criteria during session 2 (April)

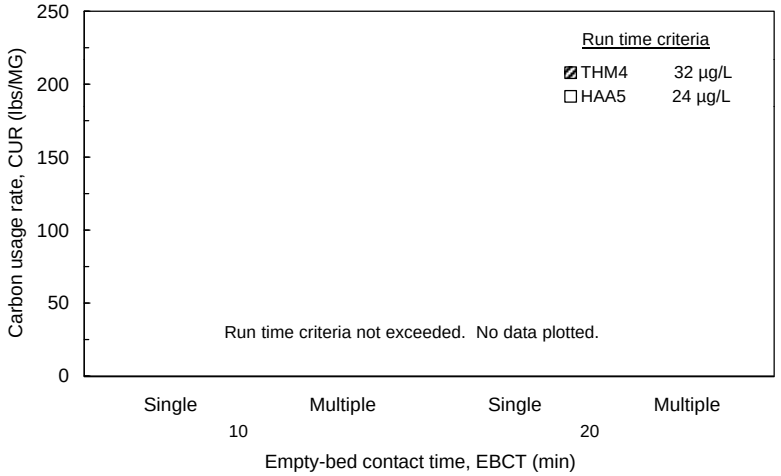


Figure 146 Carbon usage rates based on single contactors and effluent blending for Stage 2 THM4 and HAA5 effluent criteria during session 2 (April)

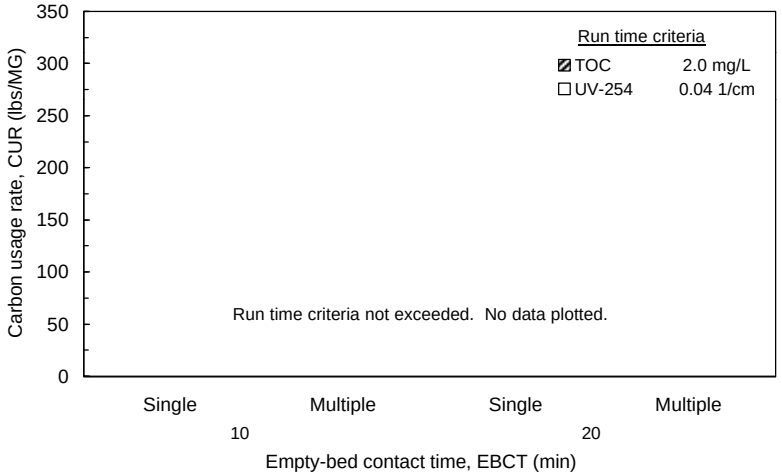


Figure 147 Carbon usage rates based on single contactors and effluent blending for TOC and UV-254 effluent criteria (high) during session 3 (June)

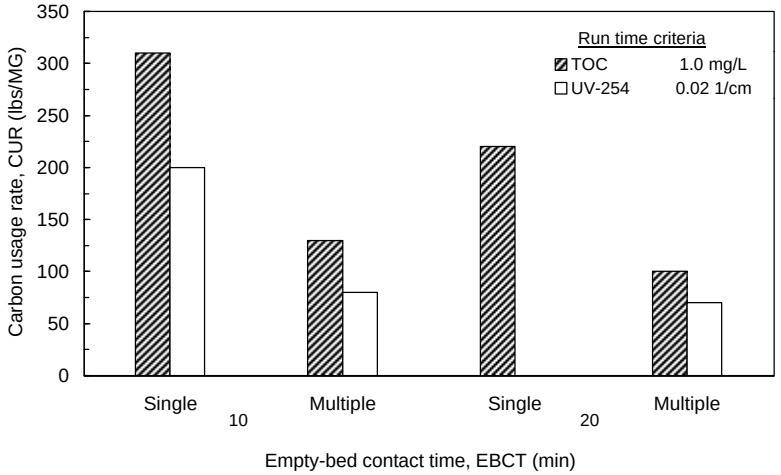


Figure 148 Carbon usage rates based on single contactors and effluent blending for TOC and UV-254 effluent criteria (low) during session 3 (June)

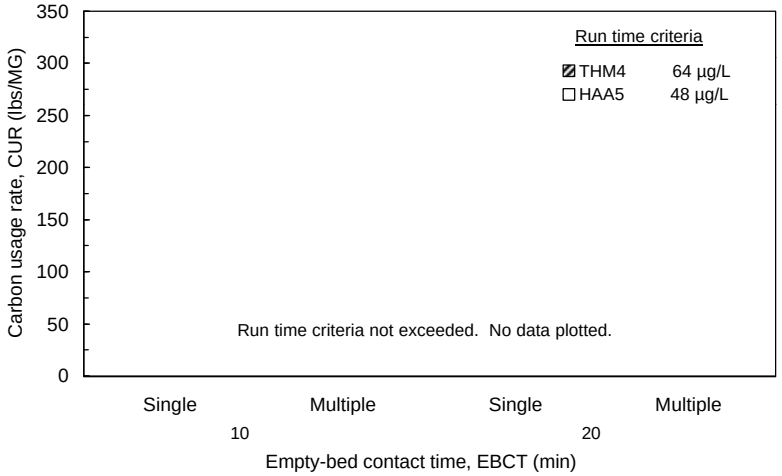


Figure 149 Carbon usage rates based on single contactors and effluent blending for Stage 1 THM4 and HAA5 effluent criteria during session 3 (June)

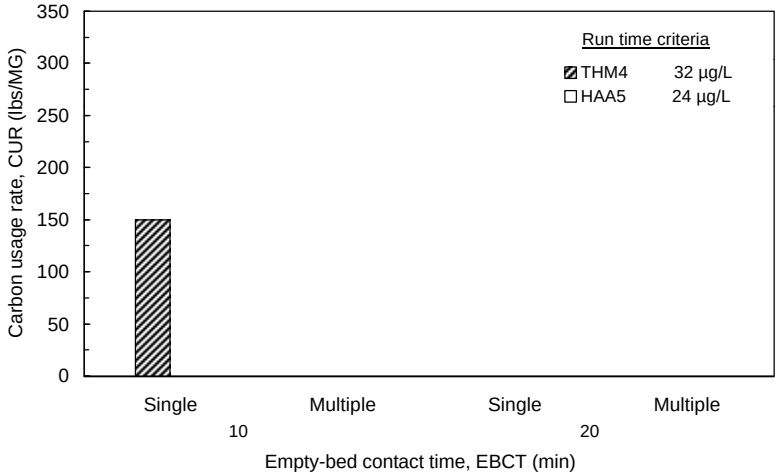


Figure 150 Carbon usage rates based on single contactors and effluent blending for Stage 2 THM4 and HAA5 effluent criteria during session 3 (June)

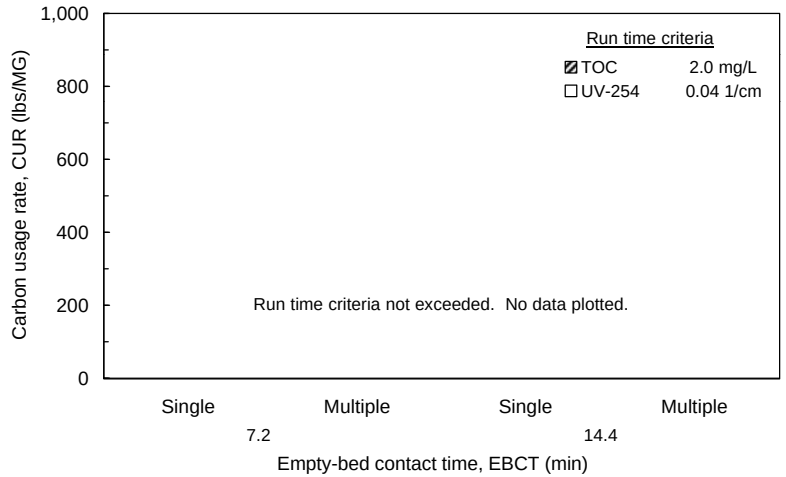


Figure 151 Carbon usage rates based on single contactors and effluent blending for TOC and UV-254 effluent criteria (high) during session 4 (October)

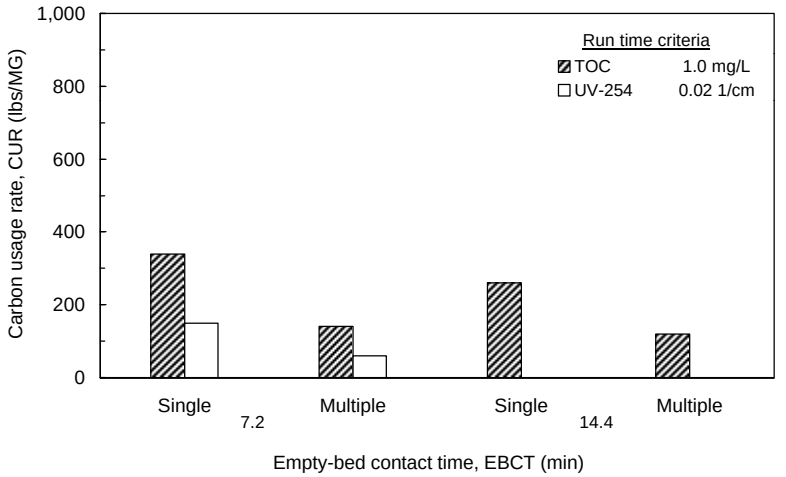


Figure 152 Carbon usage rates based on single contactors and effluent blending for TOC and UV-254 effluent criteria (low) during session 4 (October)

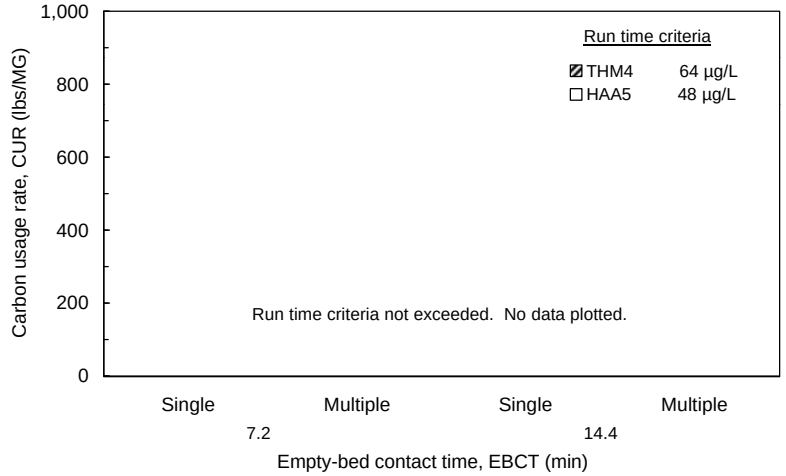


Figure 153 Carbon usage rates based on single contactors and effluent blending for Stage 1 THM4 and HAA5 effluent criteria during session 4 (October)

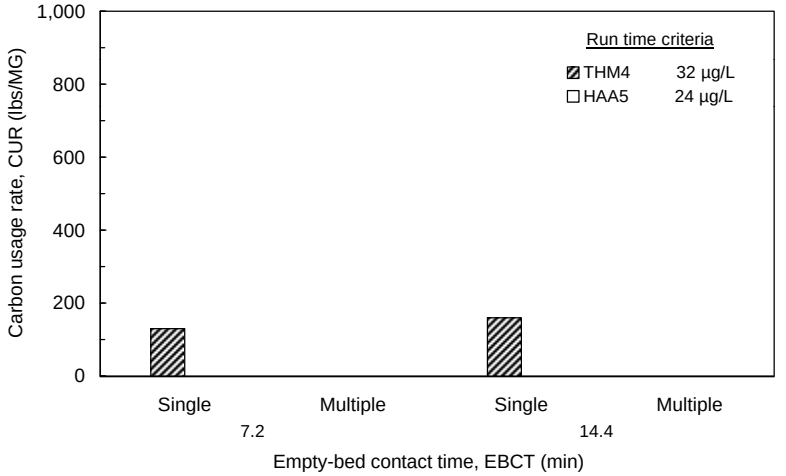


Figure 154 Carbon usage rates based on single contactors and effluent blending for Stage 2 THM4 and HAA5 effluent criteria during session 4 (October)

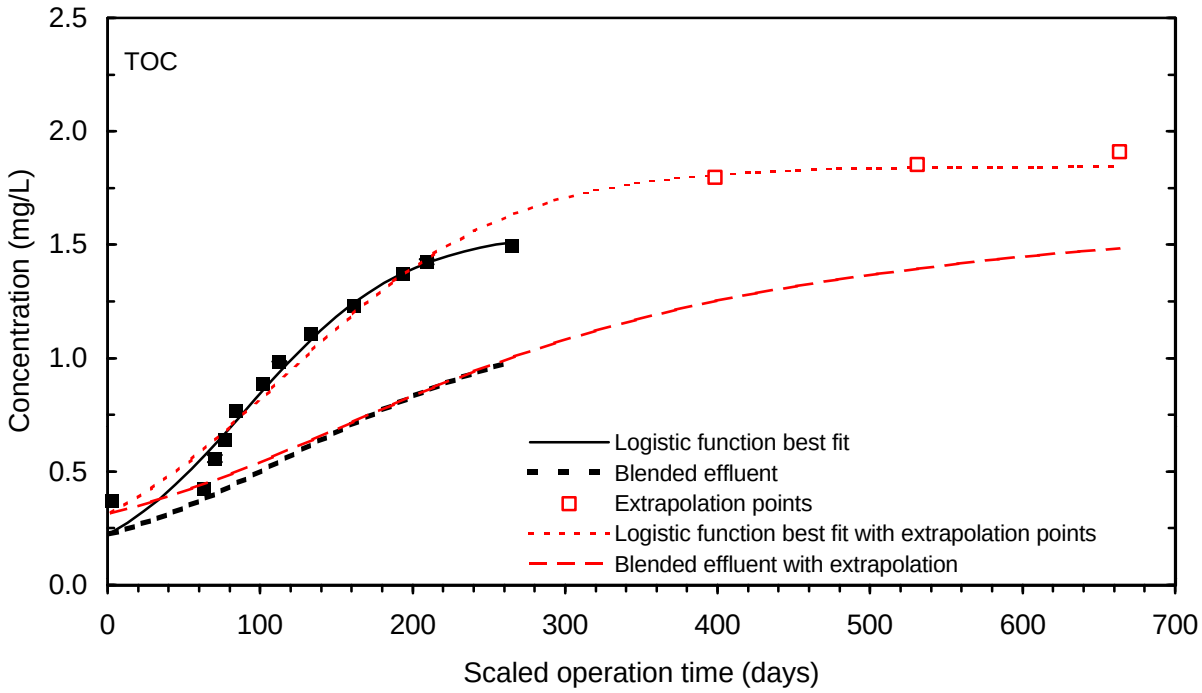


Figure 155 Single contactor and blended effluent extrapolated TOC breakthrough curve (10 minute EBCT) during session 1, January

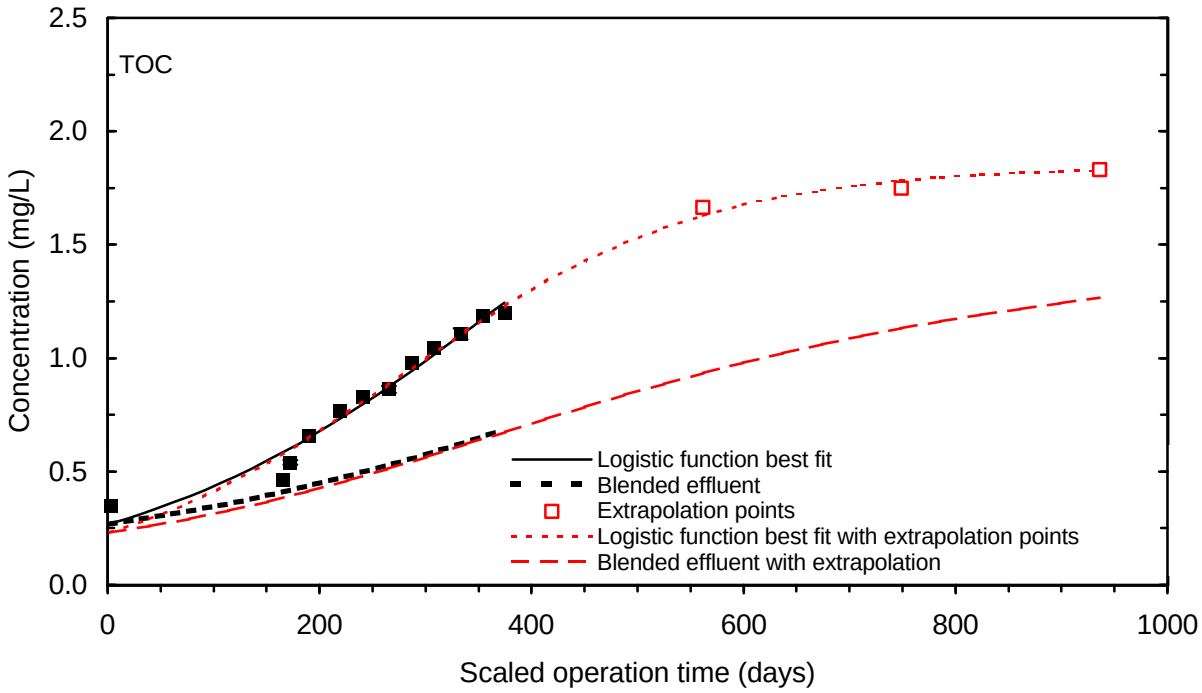


Figure 156 Single contactor and blended effluent extrapolated TOC breakthrough curve (20 minute EBCT) during session 1, January

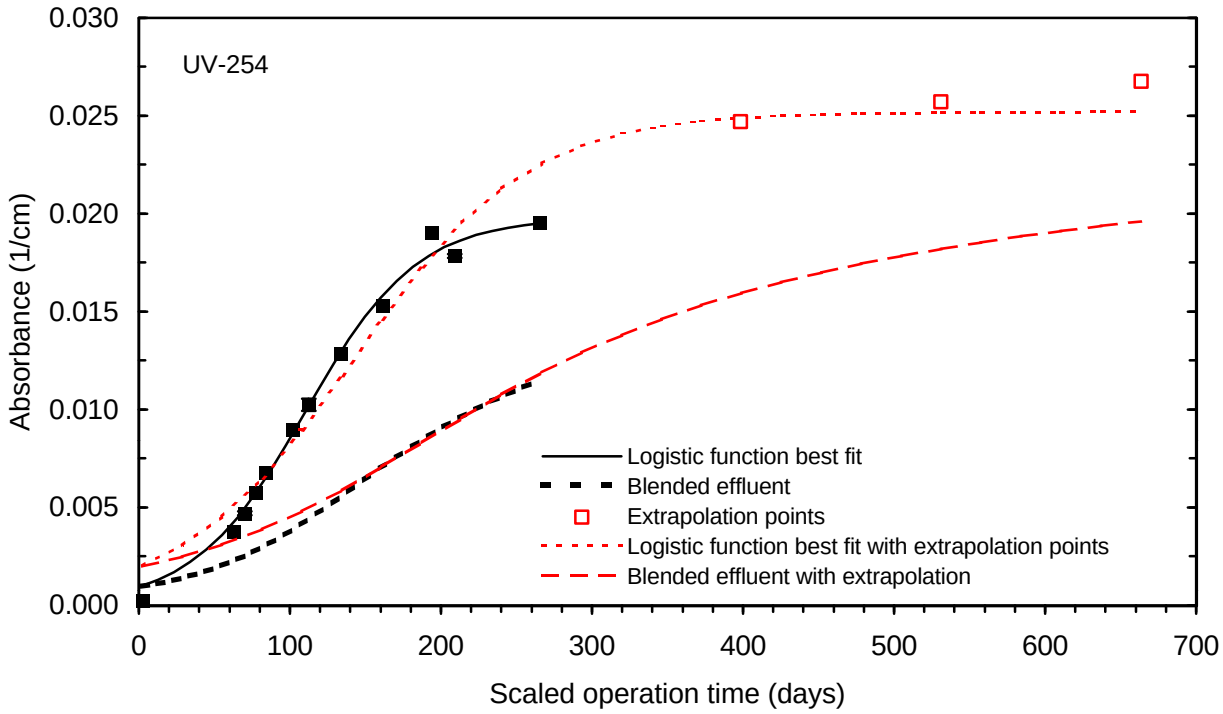


Figure 157 Single contactor and blended effluent extrapolated UV-254 breakthrough curve (10 minute EBCT) during session 1, January

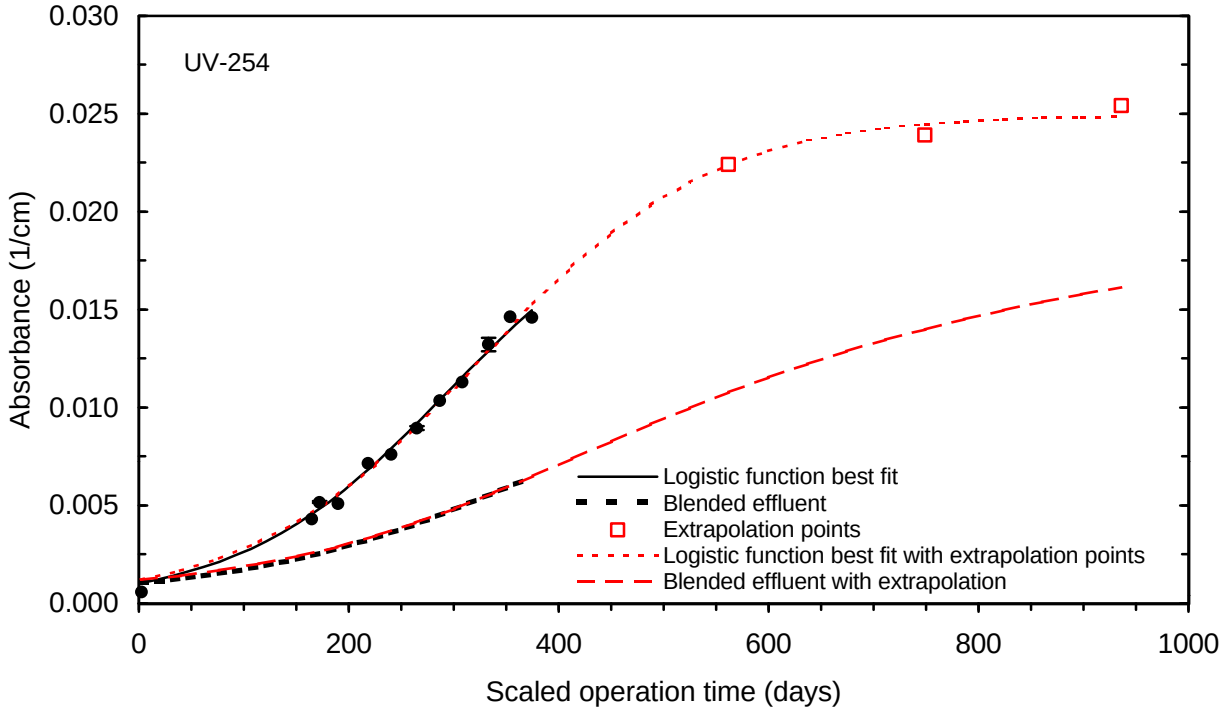


Figure 158 Single contactor and blended effluent extrapolated UV-254 breakthrough curve (20 minute EBCT) during session 1, January

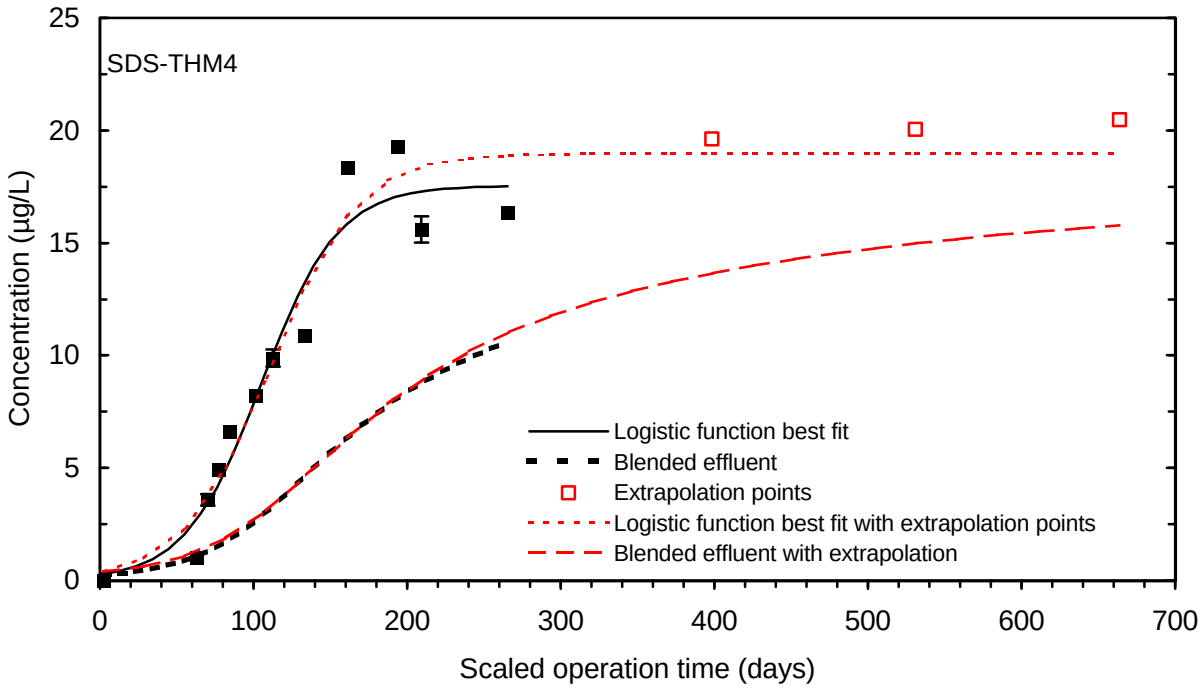


Figure 159 Single contactor and blended effluent extrapolated SDS-THM4 breakthrough curve (10 minute EBCT) during session 1, January

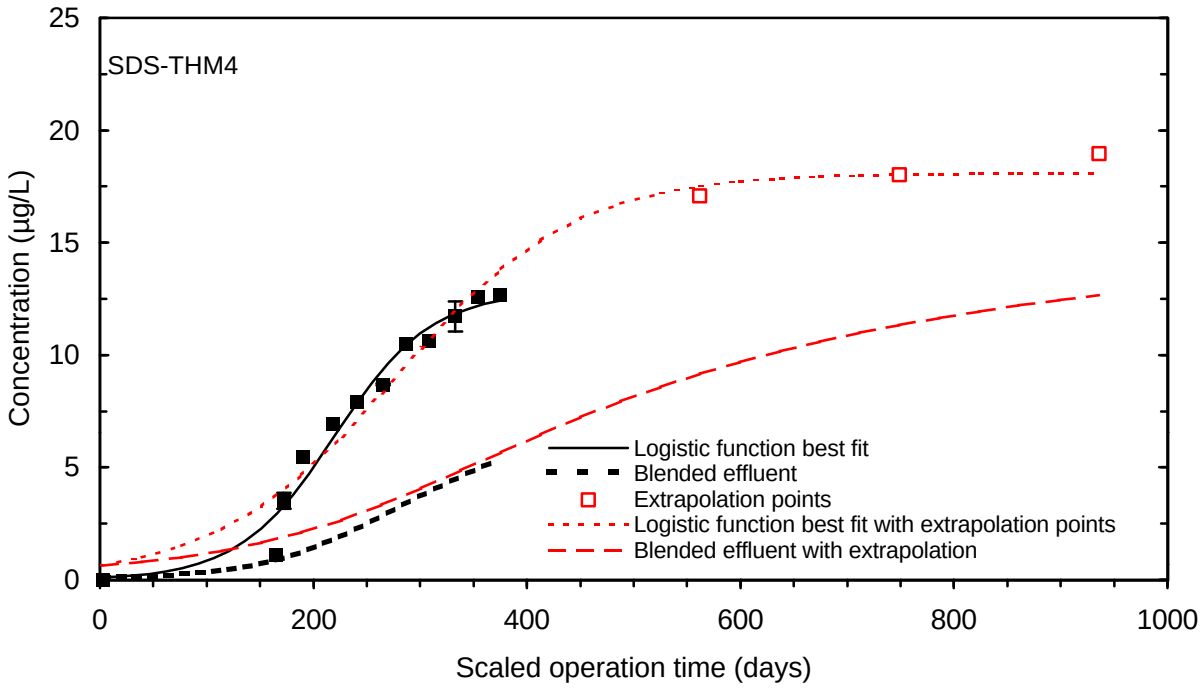


Figure 160 Single contactor and blended effluent extrapolated SDS-THM4 breakthrough curve (20 minute EBCT) during session 1, January

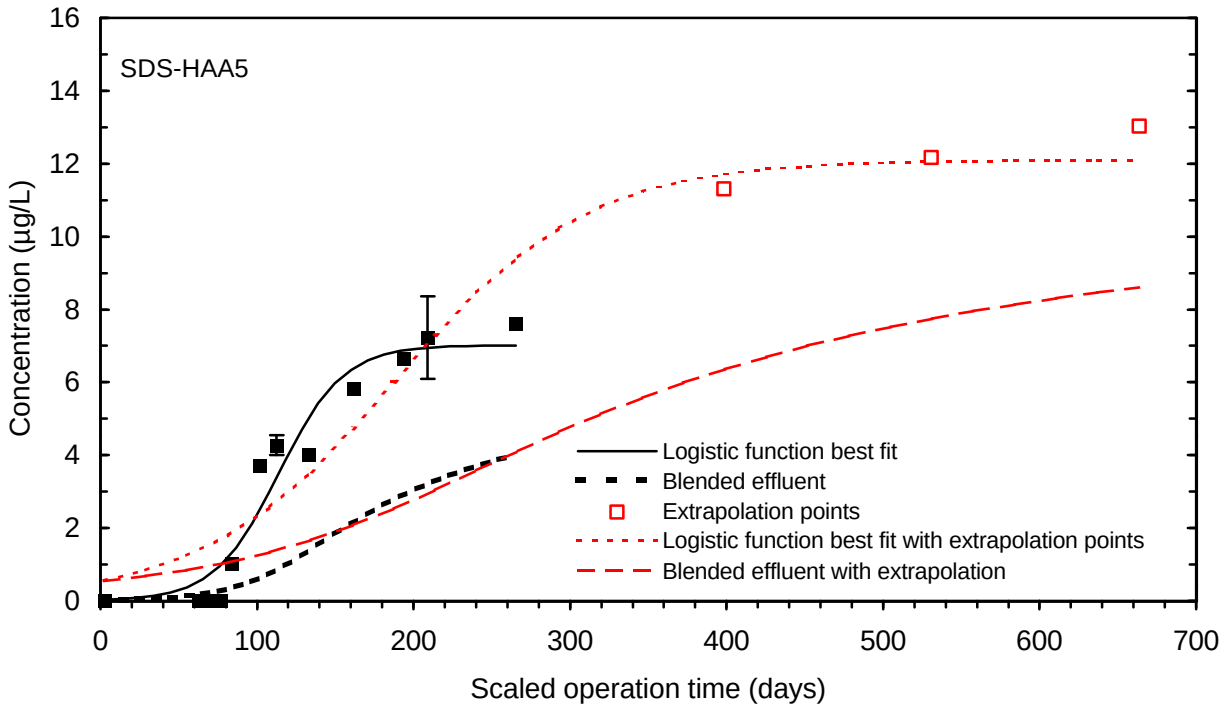


Figure 161 Single contactor and blended effluent extrapolated SDS-HAA5 breakthrough curve (10 minute EBCT) during session 1, January

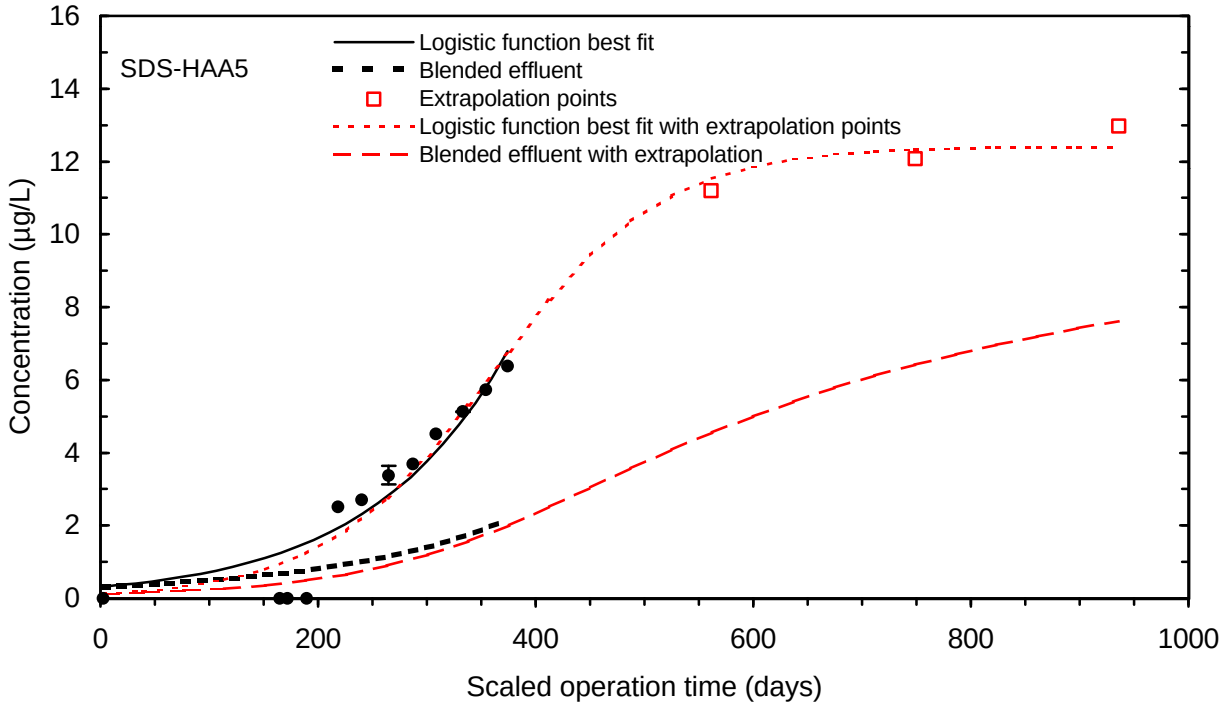


Figure 162 Single contactor and blended effluent extrapolated SDS-HAA5 breakthrough curve (20 minute EBCT) during session 1, January

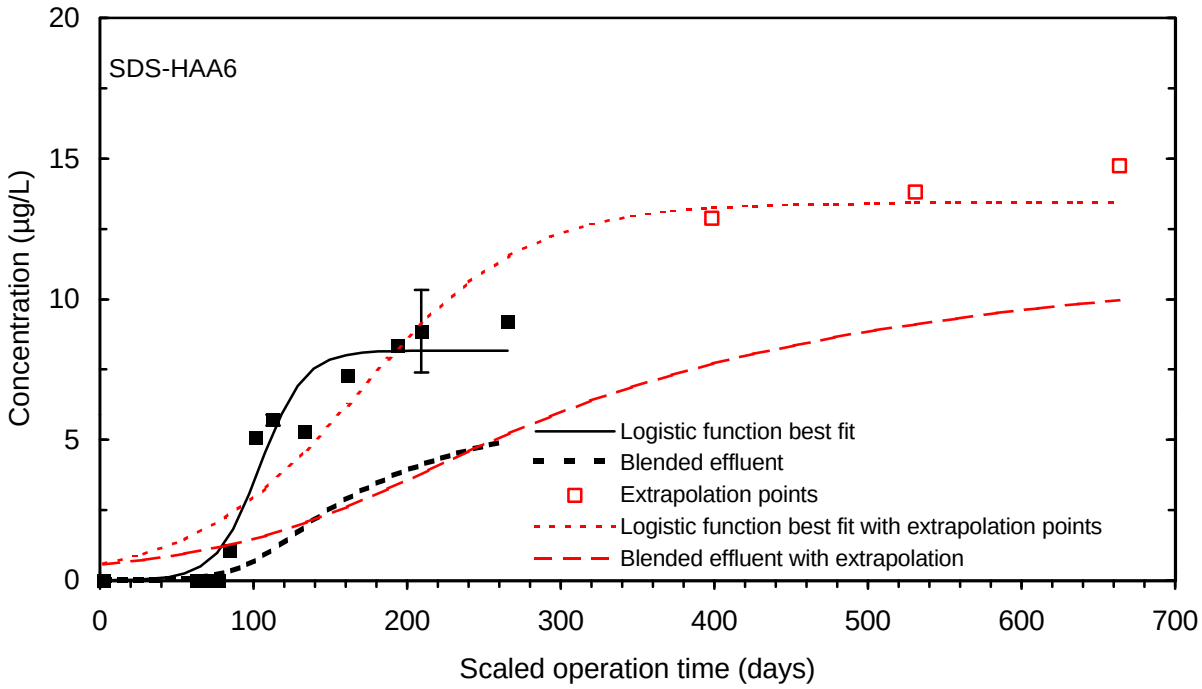


Figure 163 Single contactor and blended effluent extrapolated SDS-HAA6 breakthrough curve (10 minute EBCT) during session 1, January

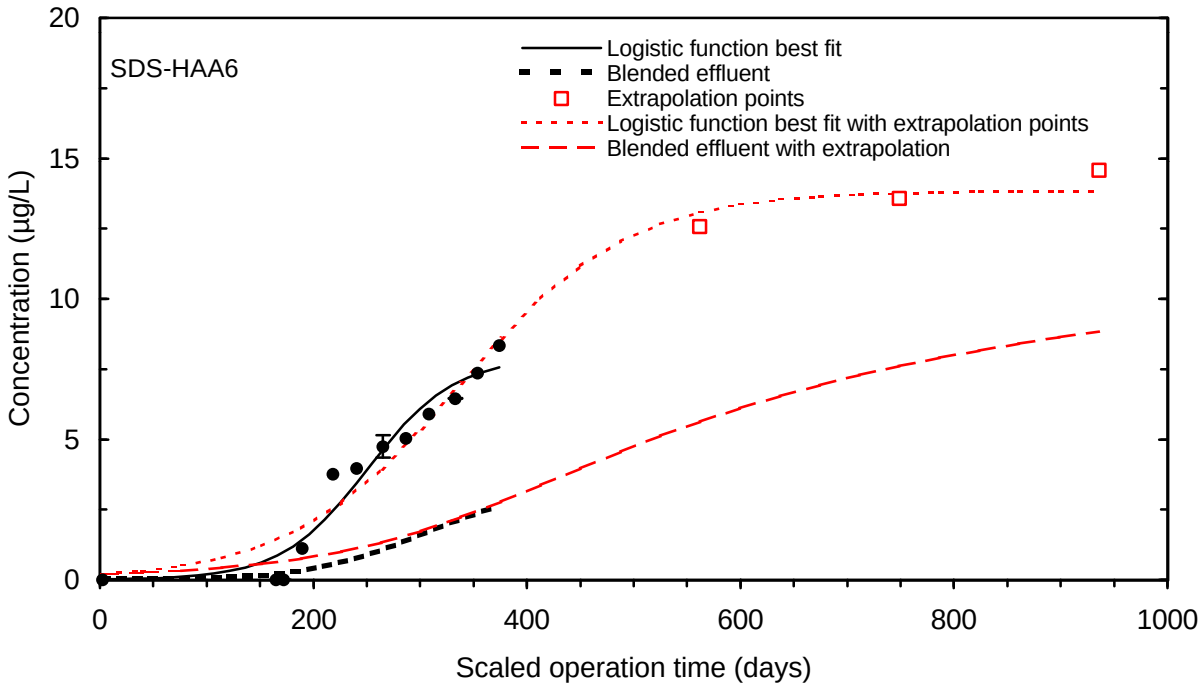


Figure 164 Single contactor and blended effluent extrapolated SDS-HAA6 breakthrough curve (20 minute EBCT) during session 1, January

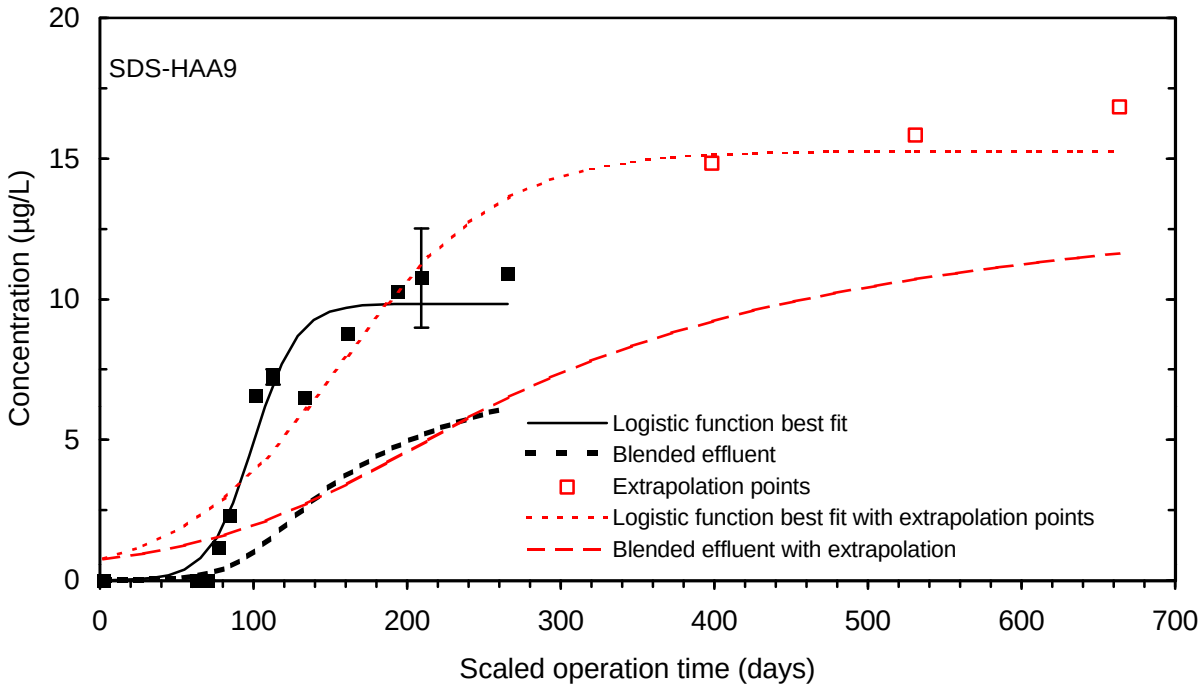


Figure 165 Single contactor and blended effluent extrapolated SDS-HAA9 breakthrough curve (10 minute EBCT) during session 1, January

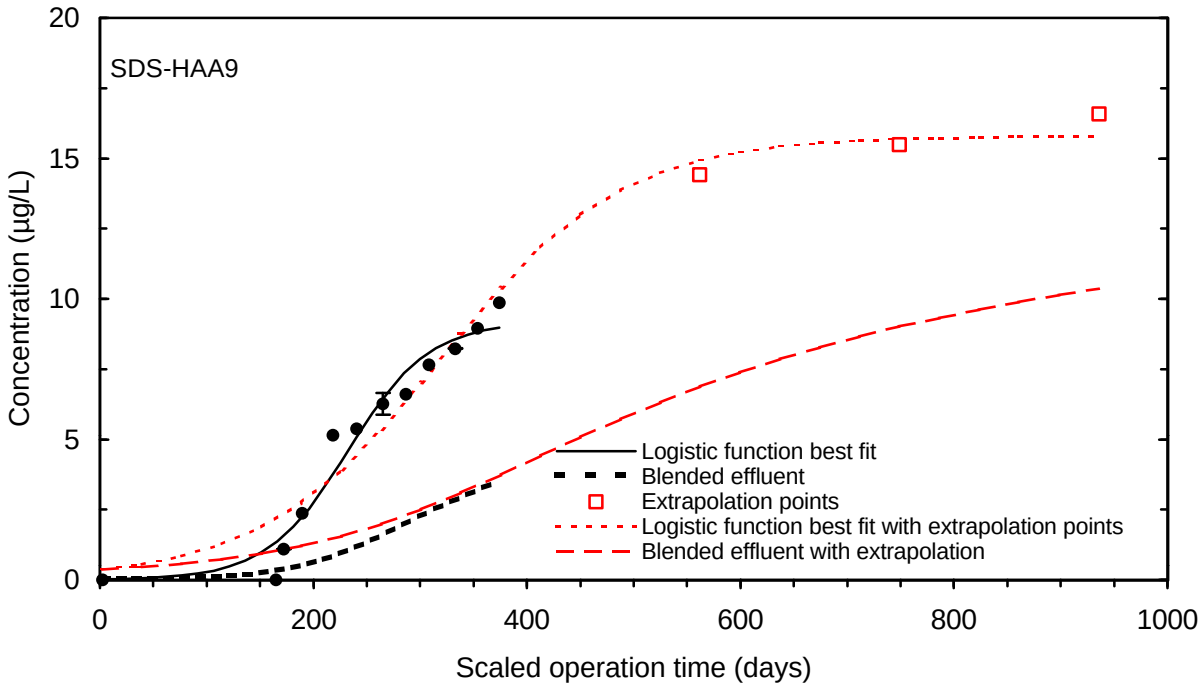


Figure 166 Single contactor and blended effluent extrapolated SDS-HAA9 breakthrough curve (20 minute EBCT) during session 1, January

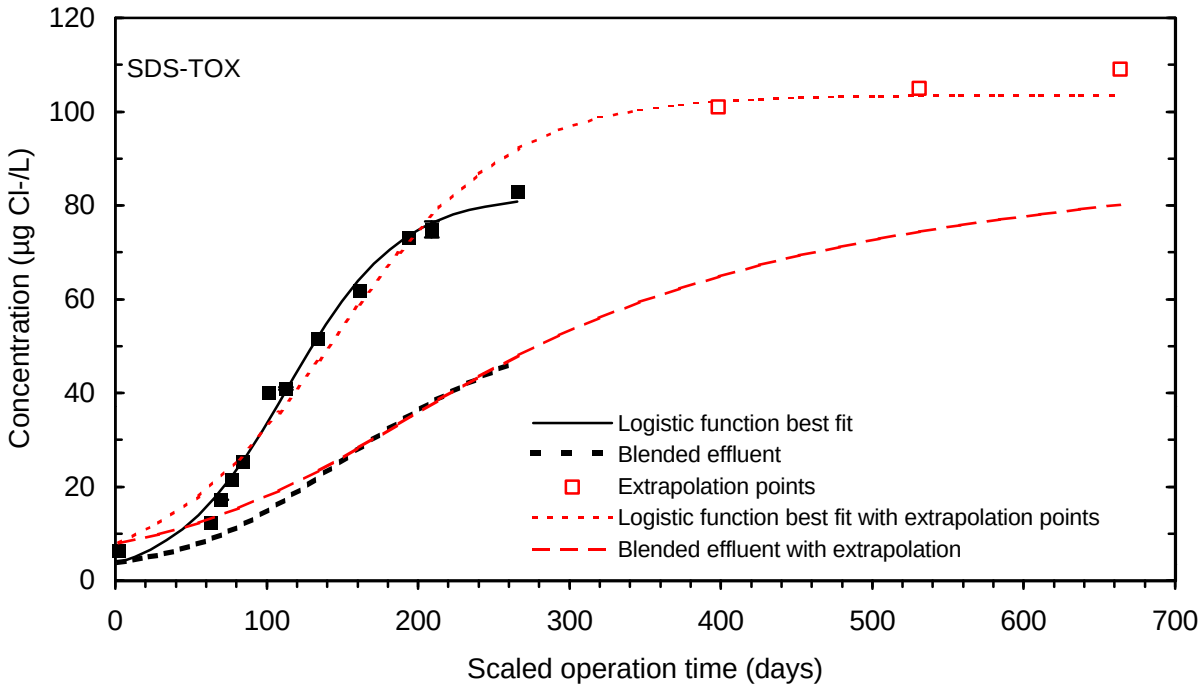


Figure 167 Single contactor and blended effluent extrapolated SDS-TOX breakthrough curve (10 minute EBCT) during session 1, January

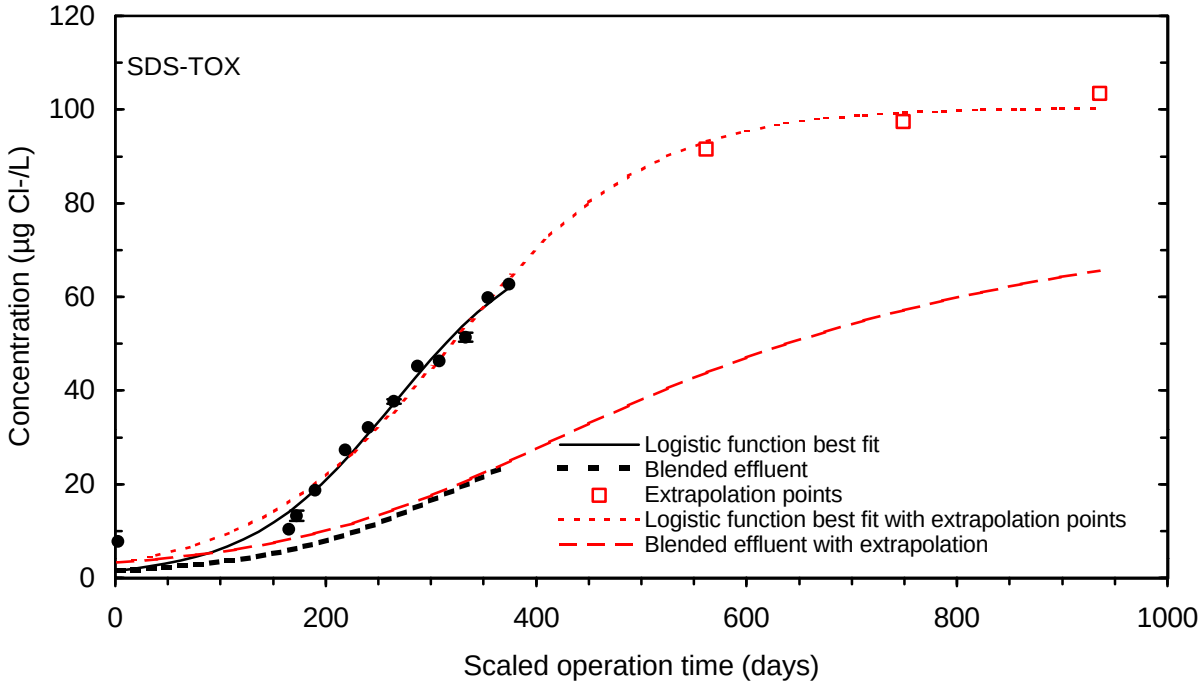


Figure 168 Single contactor and blended effluent extrapolated SDS-TOX breakthrough curve (20 minute EBCT) during session 1, January

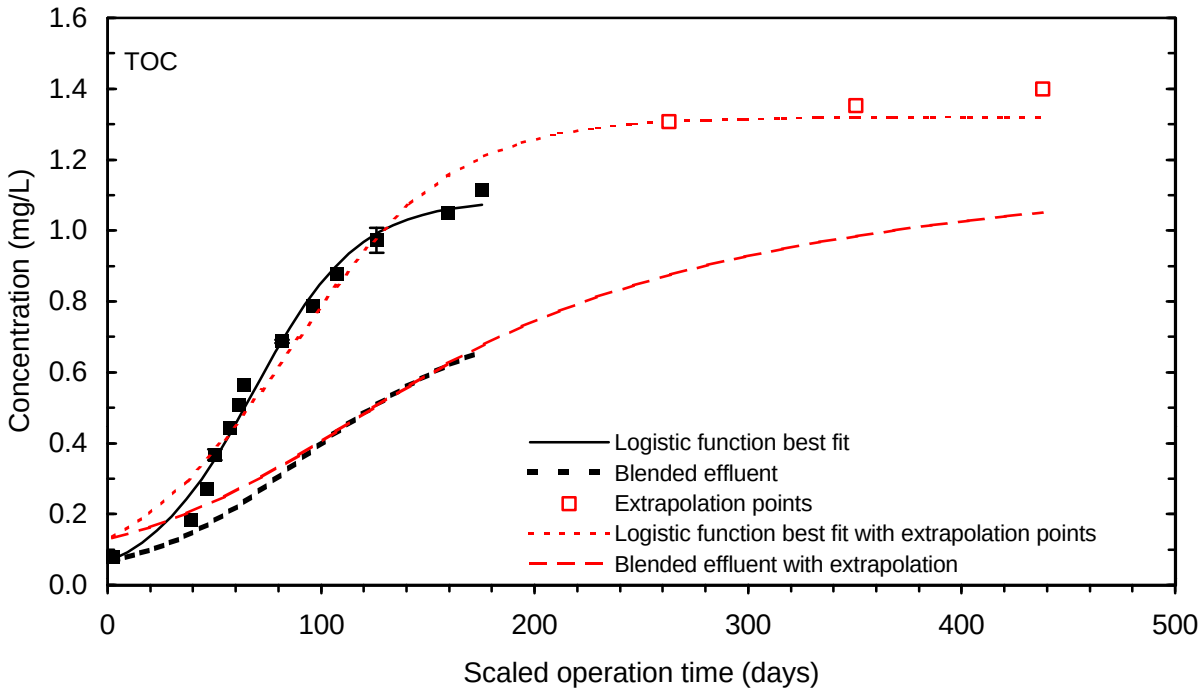


Figure 169 Single contactor and blended effluent extrapolated TOC breakthrough curve (10 minute EBCT) during session 2, April

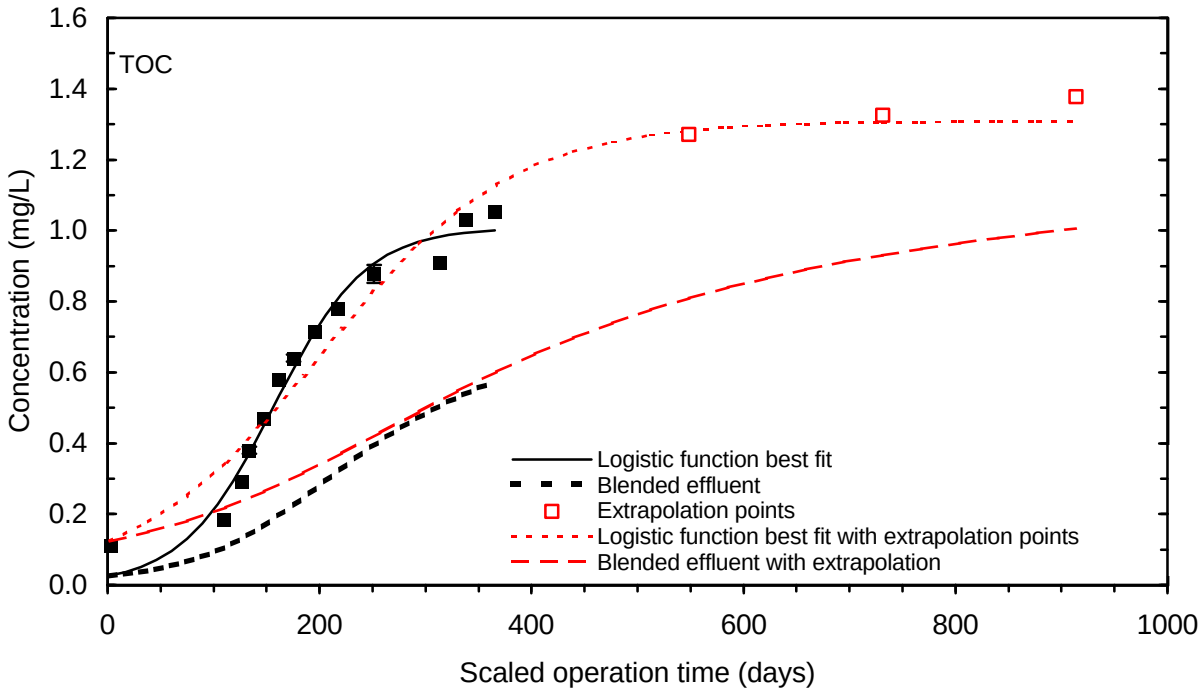


Figure 170 Single contactor and blended effluent extrapolated TOC breakthrough curve (20 minute EBCT) during session 2, April

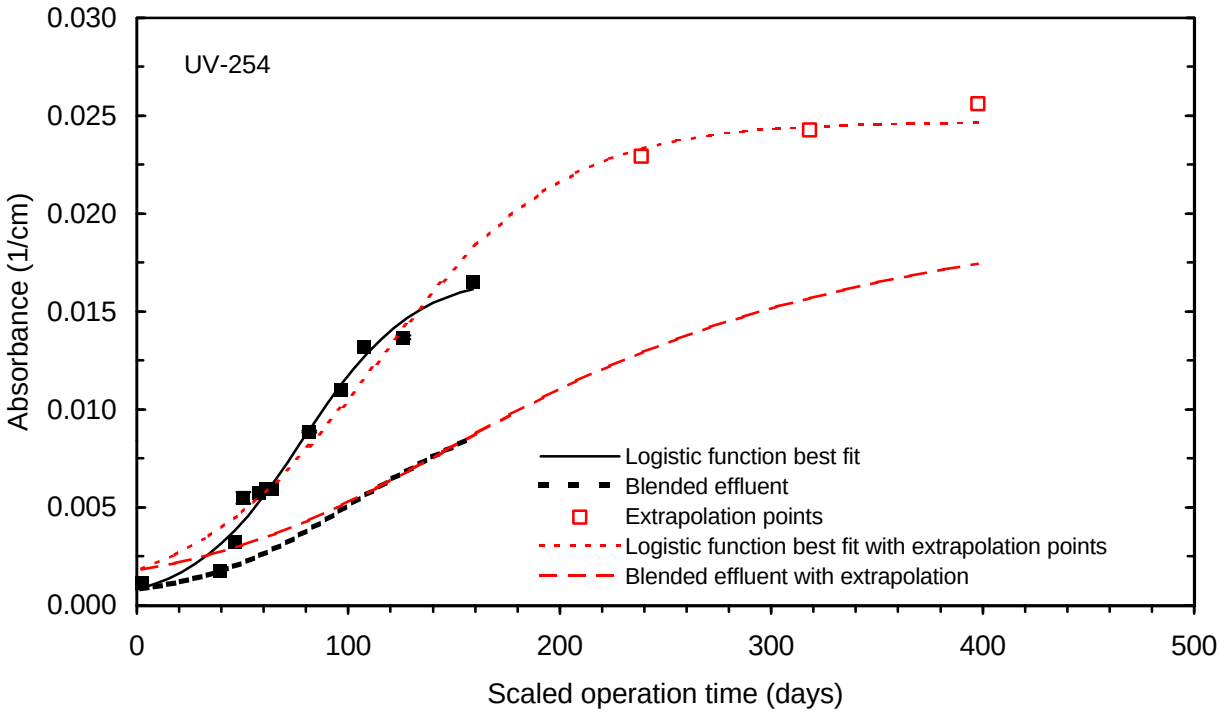


Figure 171 Single contactor and blended effluent extrapolated UV-254 breakthrough curve (10 minute EBCT) during session 2, April

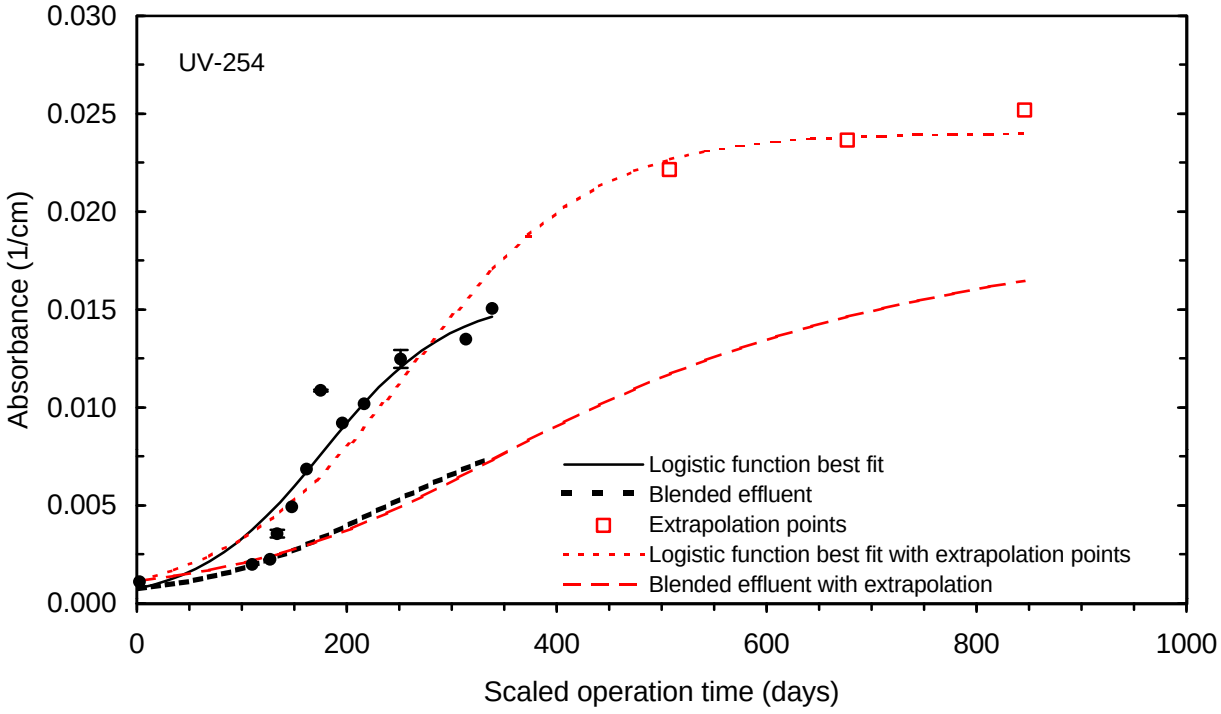


Figure 172 Single contactor and blended effluent extrapolated UV-254 breakthrough curve (20 minute EBCT) during session 2, April

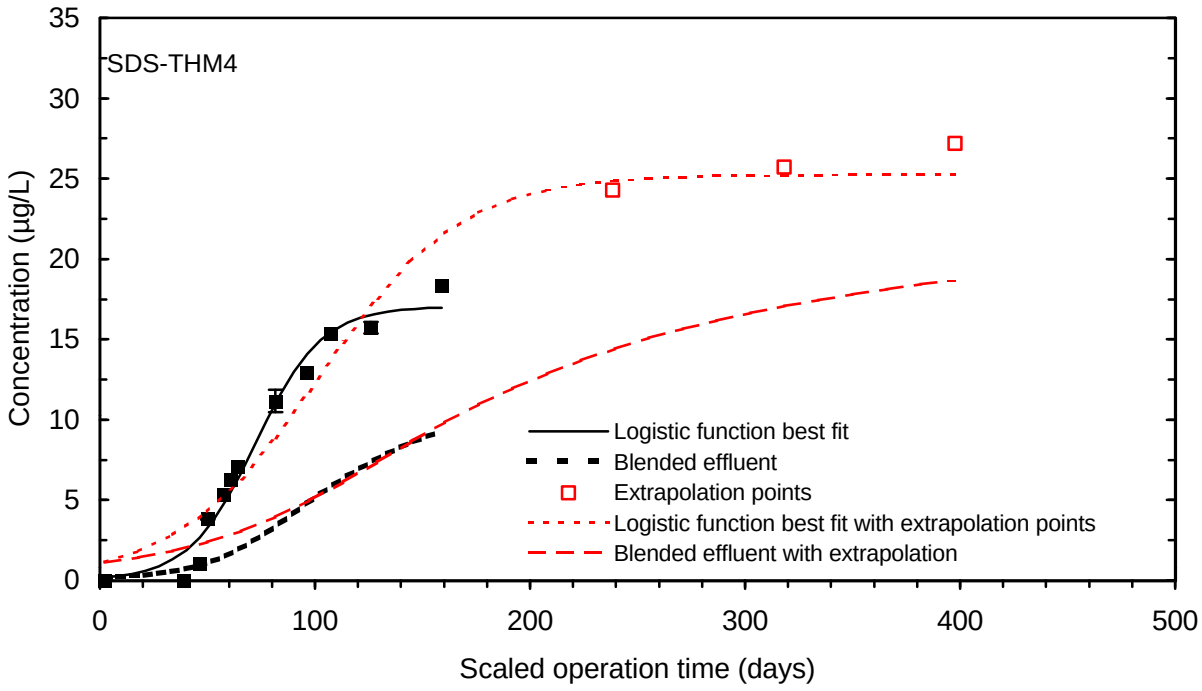


Figure 173 Single contactor and blended effluent extrapolated SDS-THM4 breakthrough curve (10 minute EBCT) during session 2, April

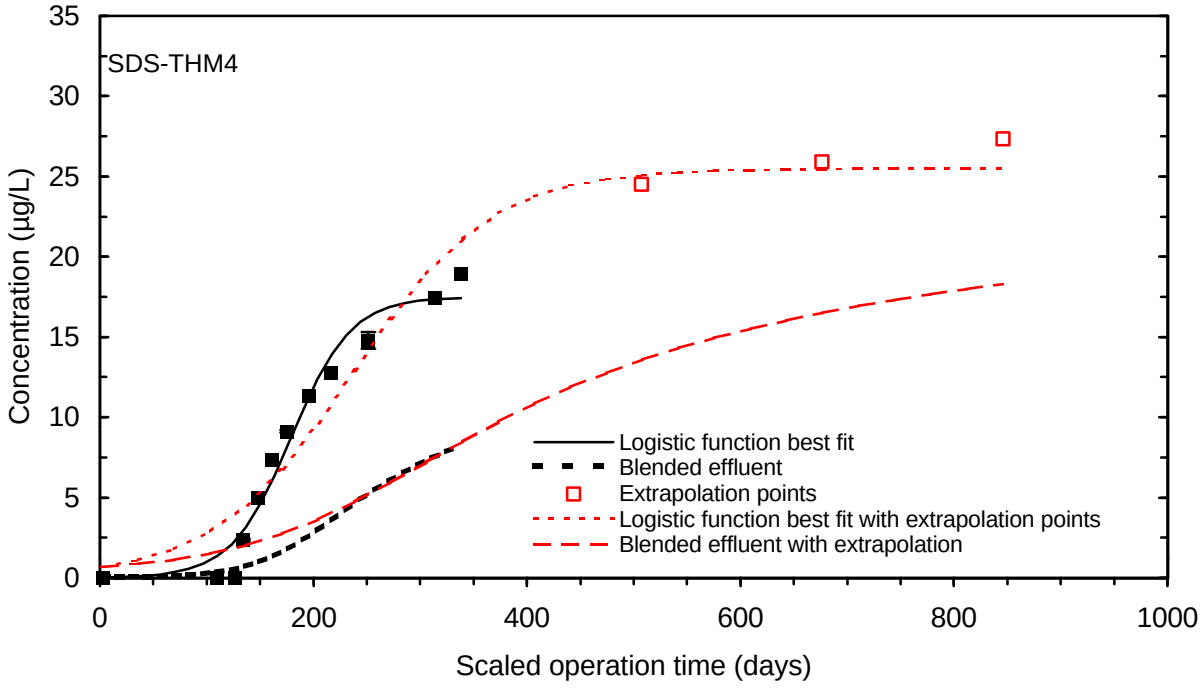


Figure 174 Single contactor and blended effluent extrapolated SDS-THM4 breakthrough curve (20 minute EBCT) during session 2, April

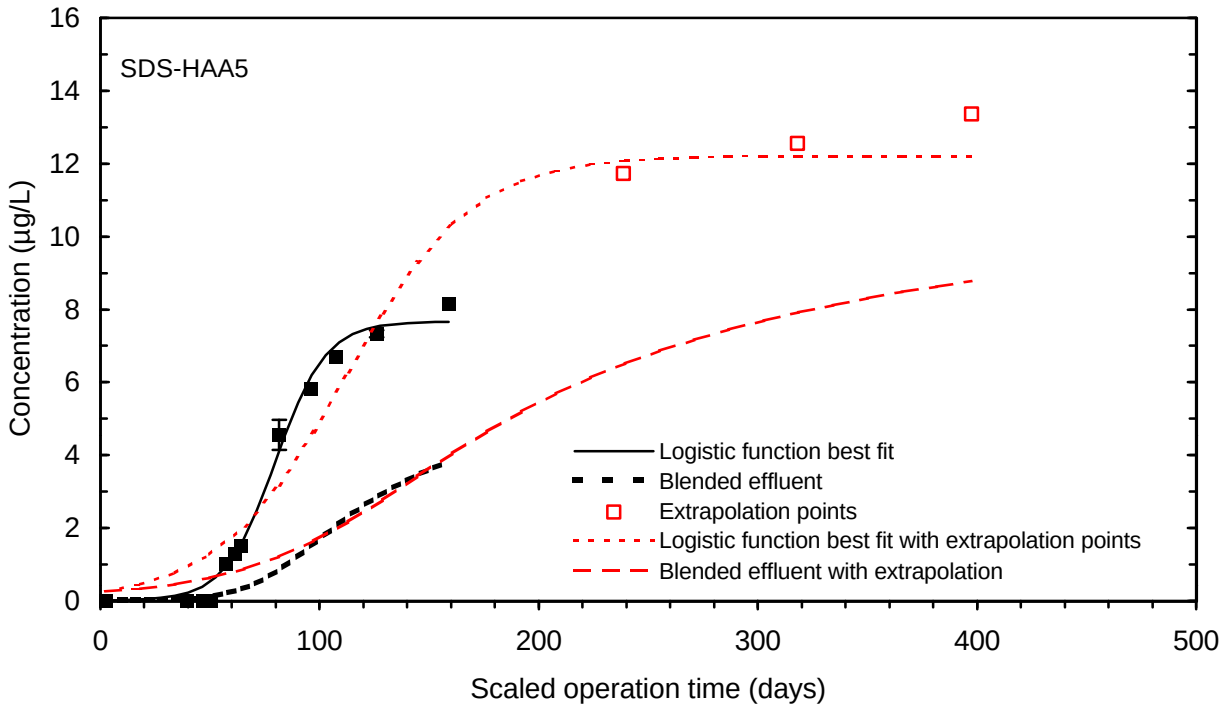


Figure 175 Single contactor and blended effluent extrapolated SDS-HAA5 breakthrough curve (10 minute EBCT) during session 2, April

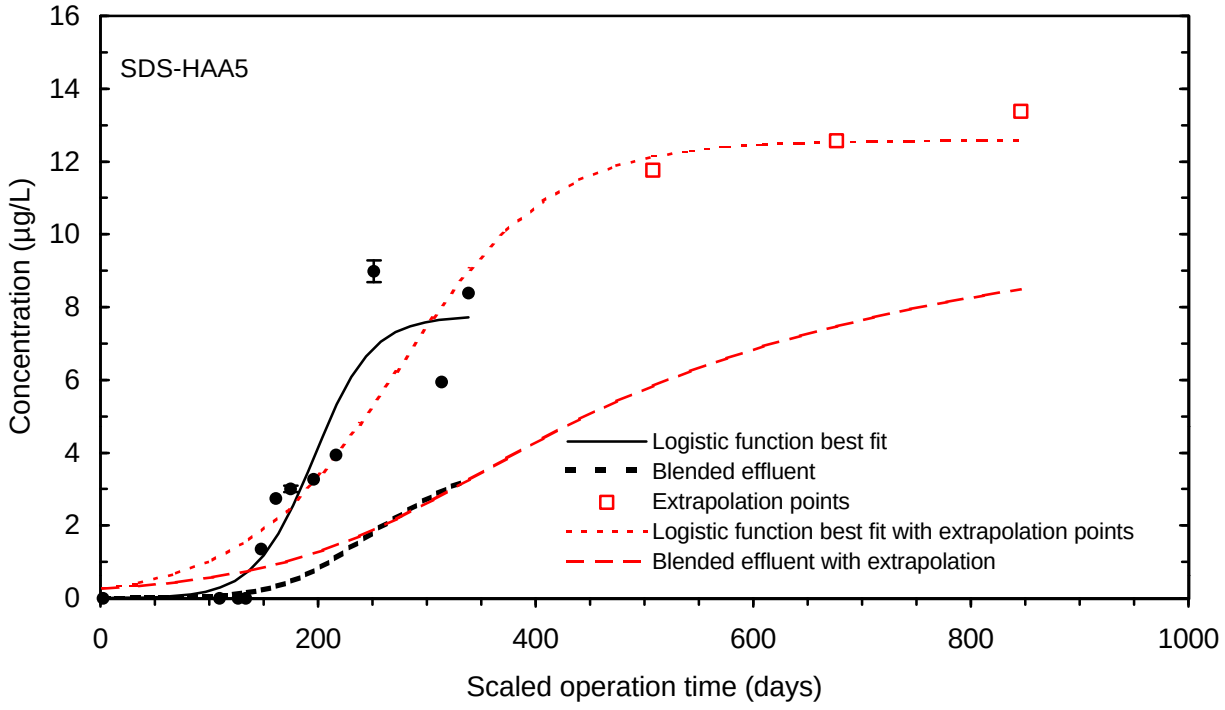


Figure 176 Single contactor and blended effluent extrapolated SDS-HAA5 breakthrough curve (20 minute EBCT) during session 2, April

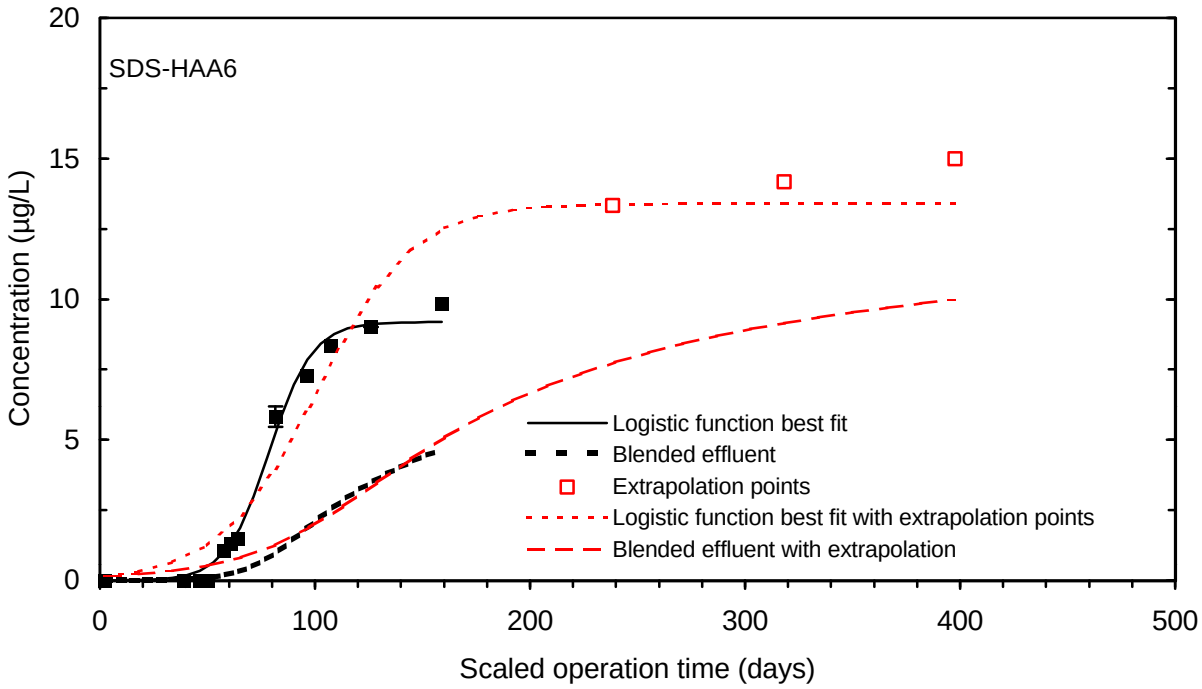


Figure 177 Single contactor and blended effluent extrapolated SDS-HAA6 breakthrough curve (10 minute EBCT) during session 2, April

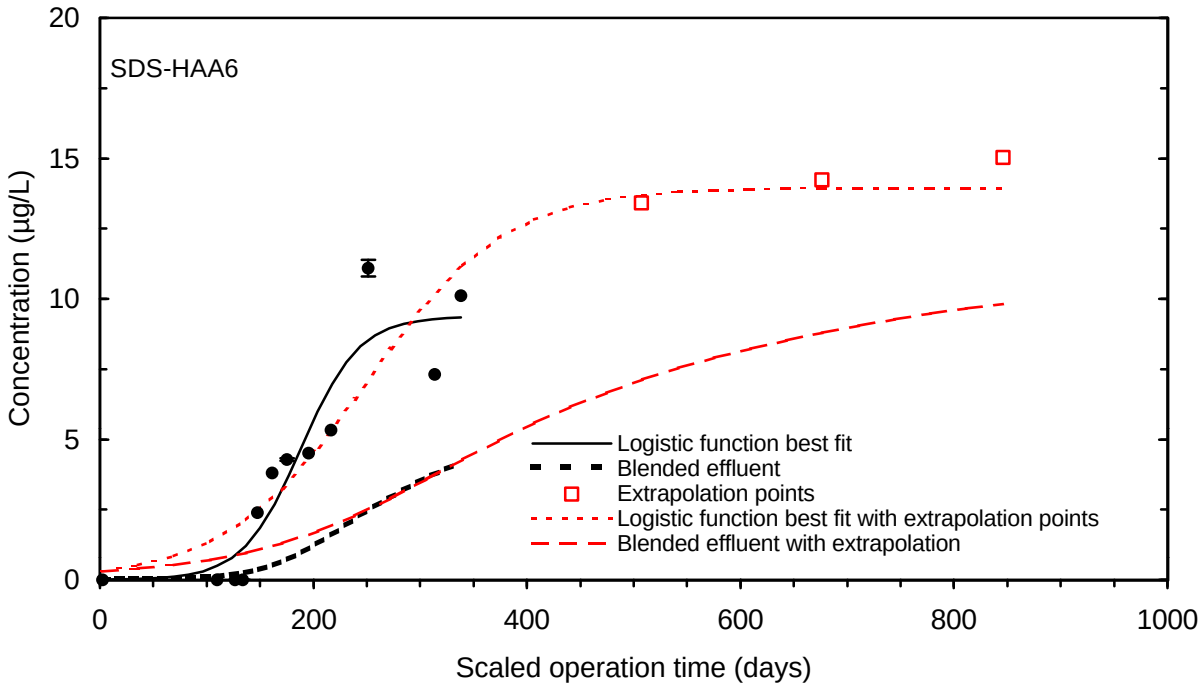


Figure 178 Single contactor and blended effluent extrapolated SDS-HAA6 breakthrough curve (20 minute EBCT) during session 2, April

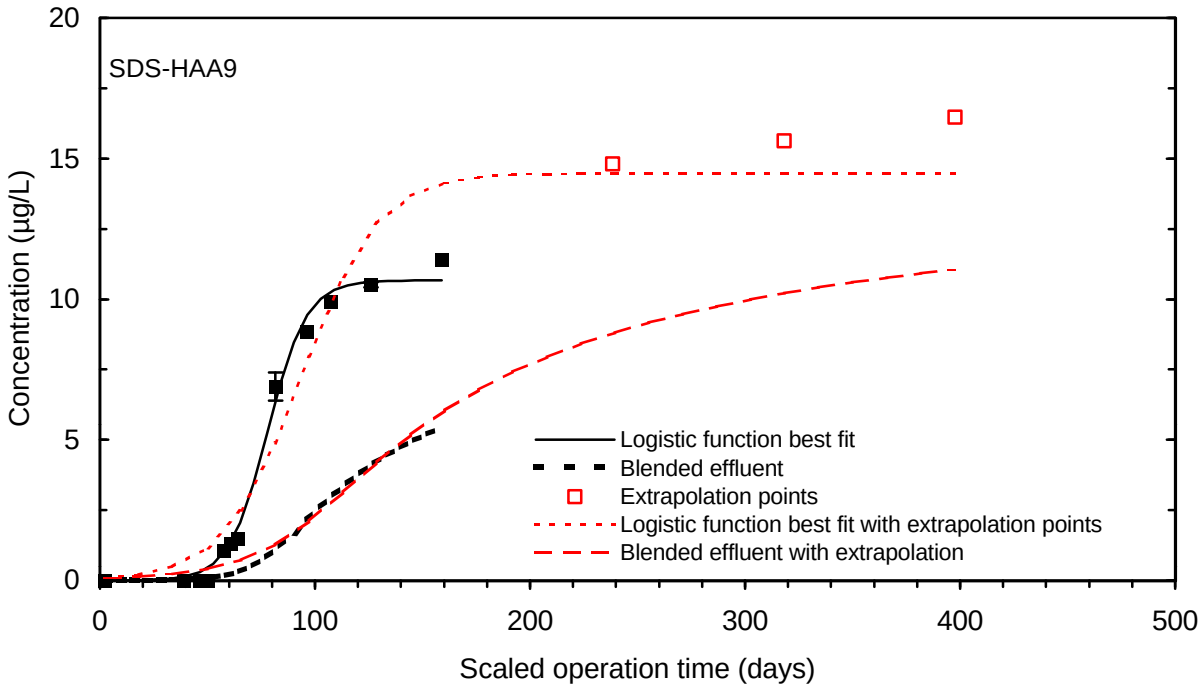


Figure 179 Single contactor and blended effluent extrapolated SDS-HAA9 breakthrough curve (10 minute EBCT) during session 2, April

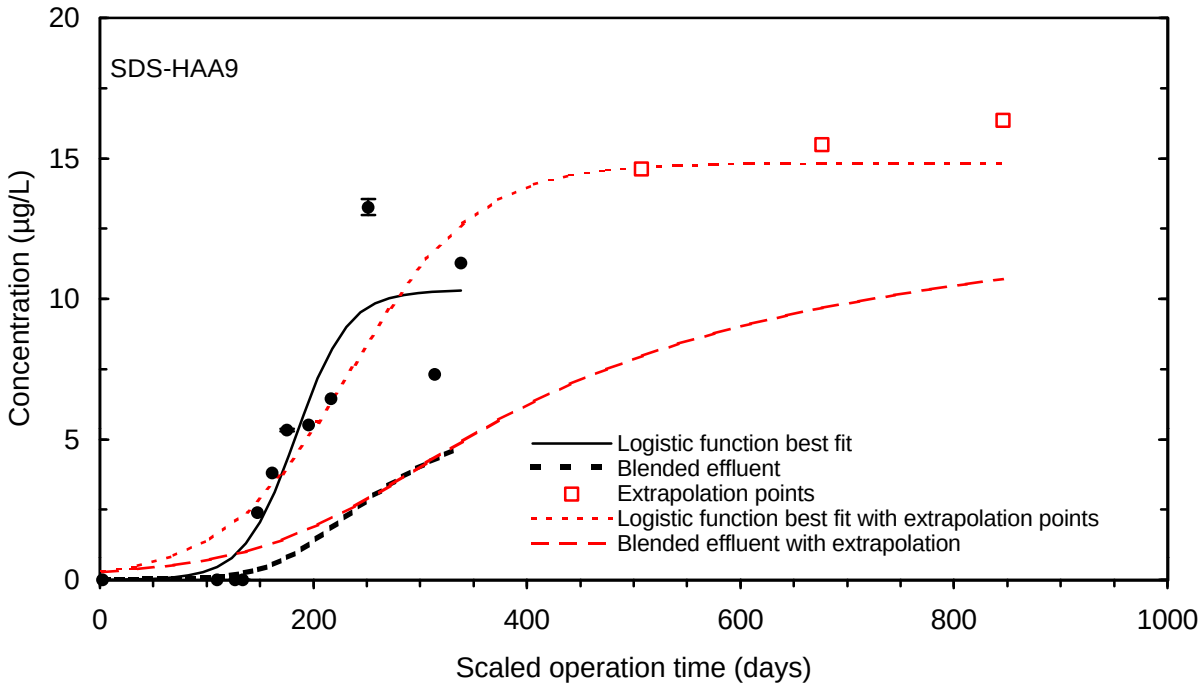


Figure 180 Single contactor and blended effluent extrapolated SDS-HAA9 breakthrough curve (20 minute EBCT) during session 2, April

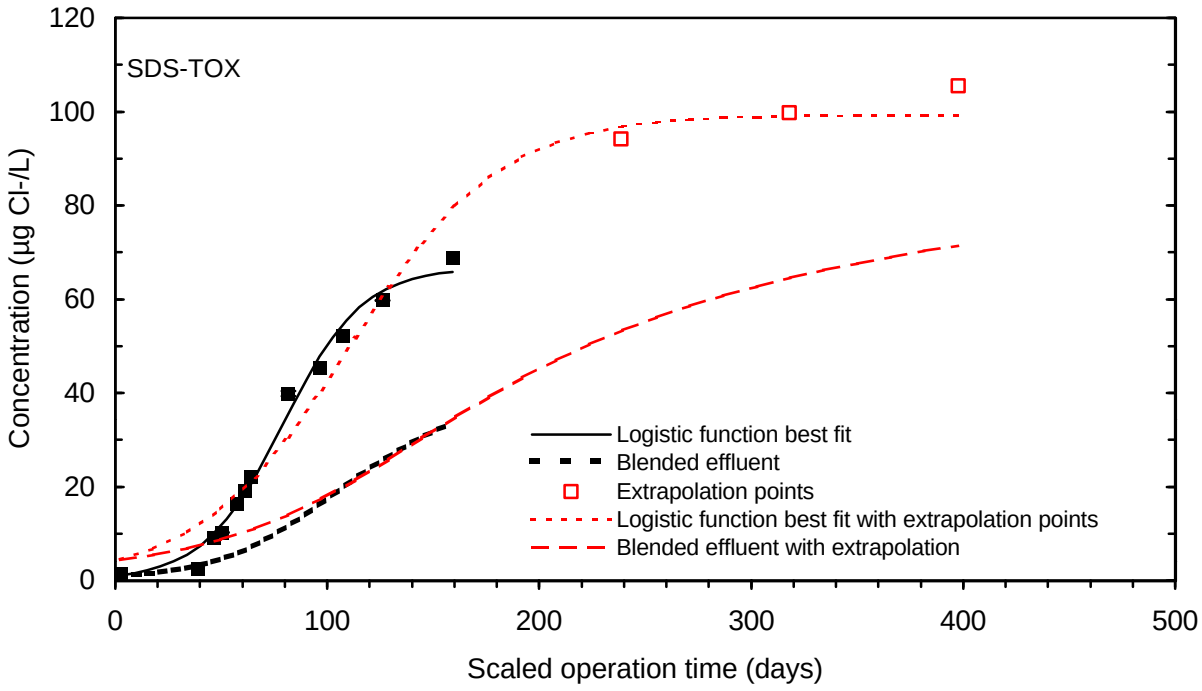


Figure 181 Single contactor and blended effluent extrapolated SDS-TOX breakthrough curve (10 minute EBCT) during session 2, April

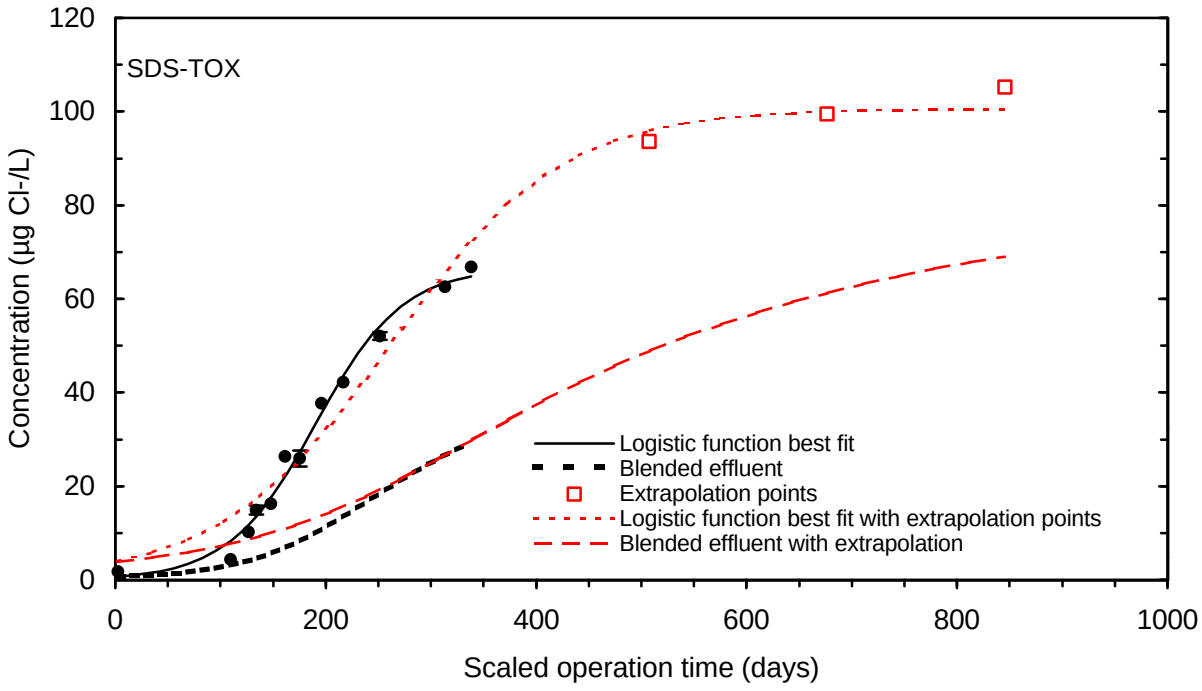


Figure 182 Single contactor and blended effluent extrapolated SDS-TOX breakthrough curve (20 minute EBCT) during session 2, April

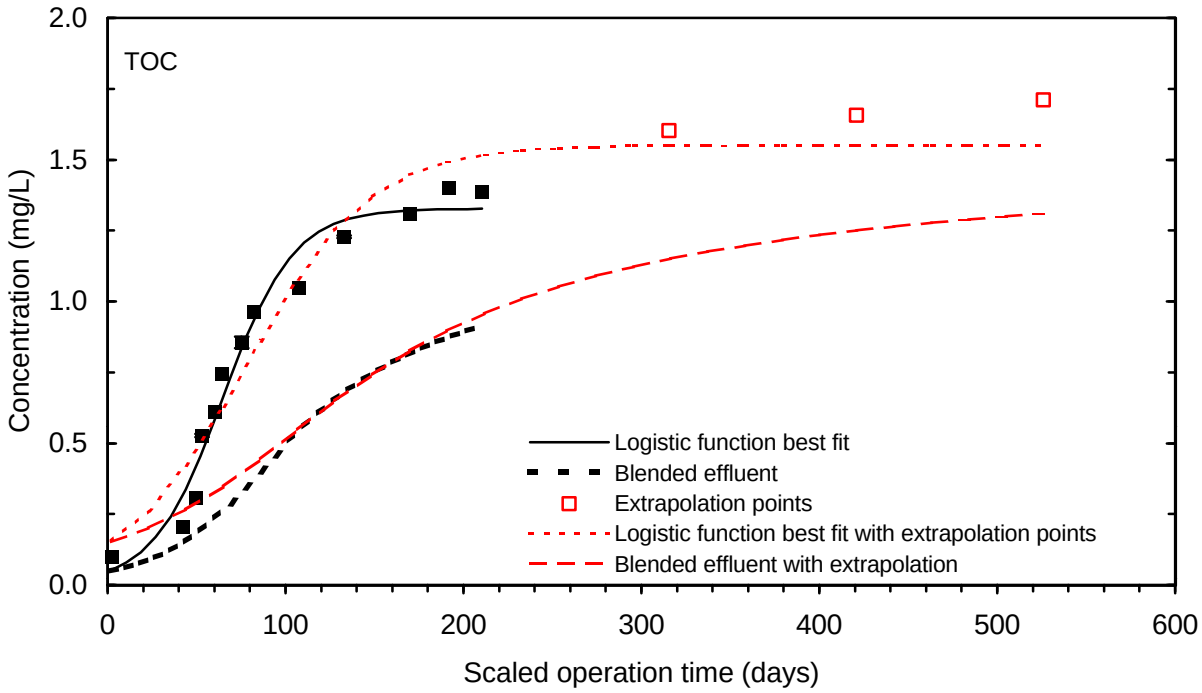


Figure 183 Single contactor and blended effluent extrapolated TOC breakthrough curve (10 minute EBCT) during session 3, June

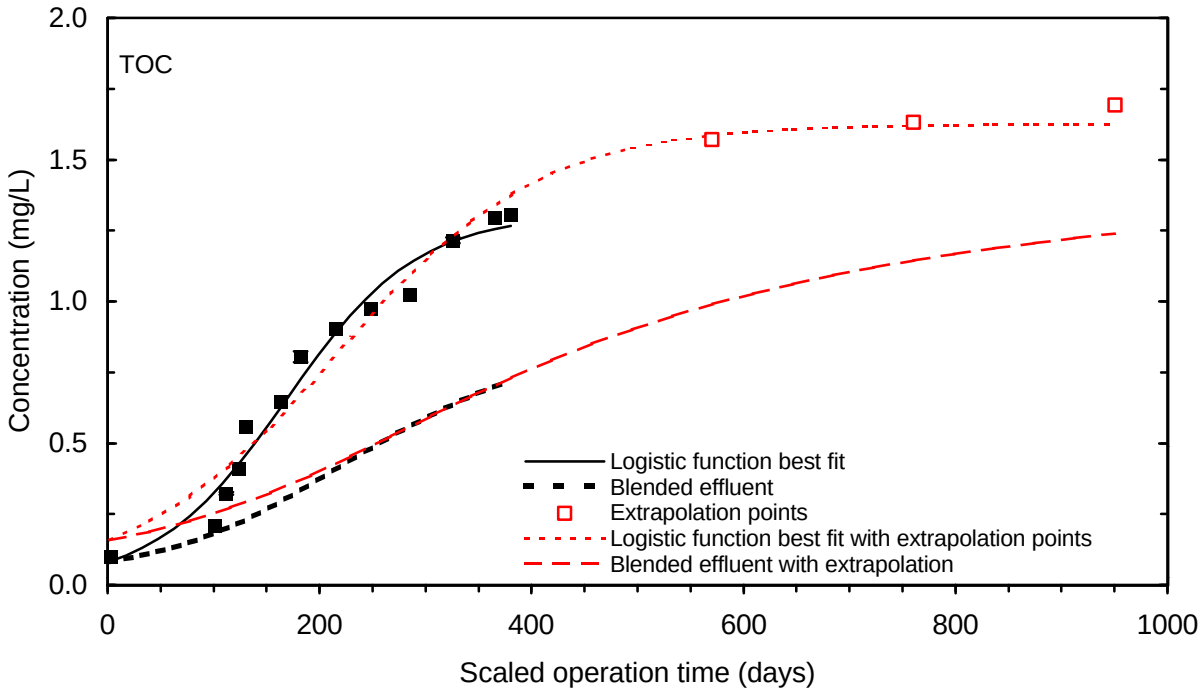


Figure 184 Single contactor and blended effluent extrapolated TOC breakthrough curve (20 minute EBCT) during session 3, June

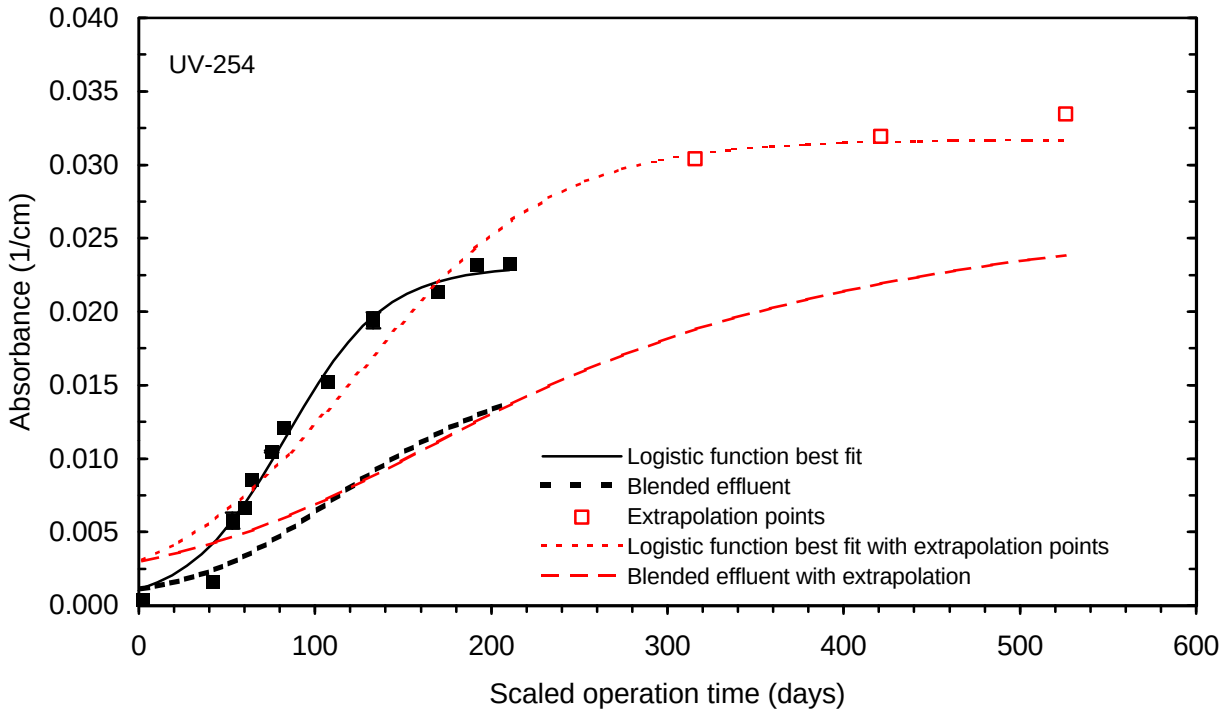


Figure 185 Single contactor and blended effluent extrapolated UV-254 breakthrough curve (10 minute EBCT) during session 3, June

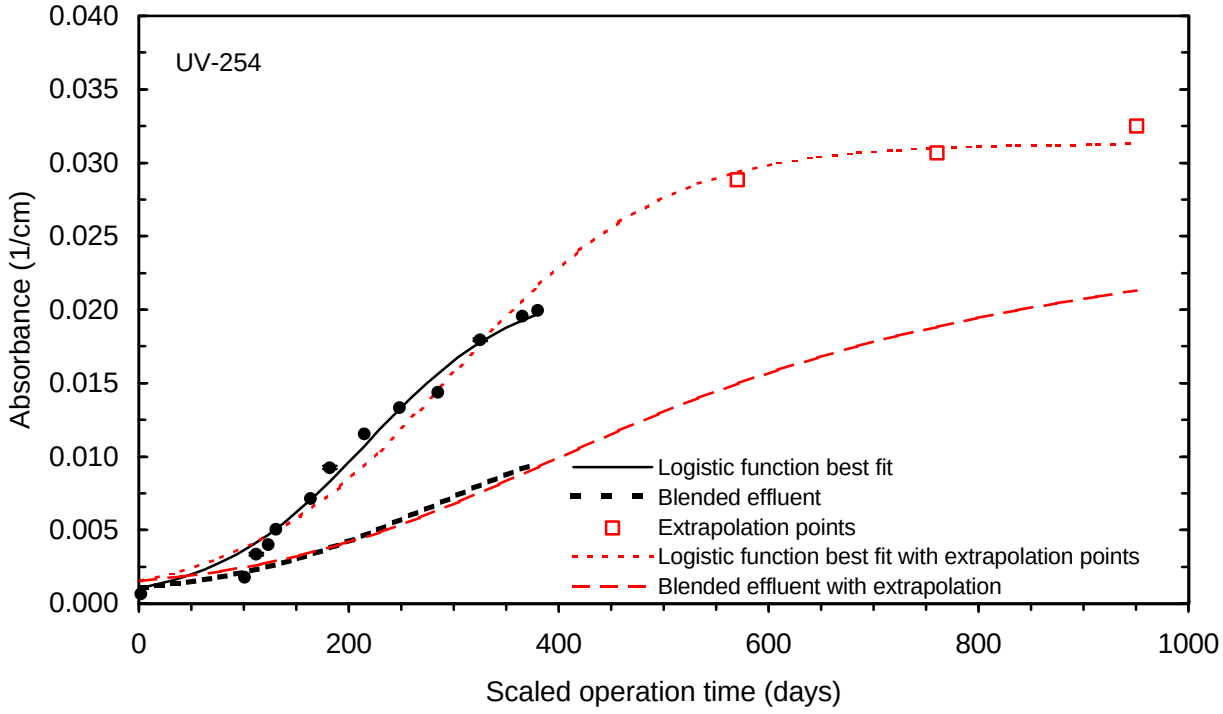


Figure 186 Single contactor and blended effluent extrapolated UV-254 breakthrough curve (20 minute EBCT) during session 3, June

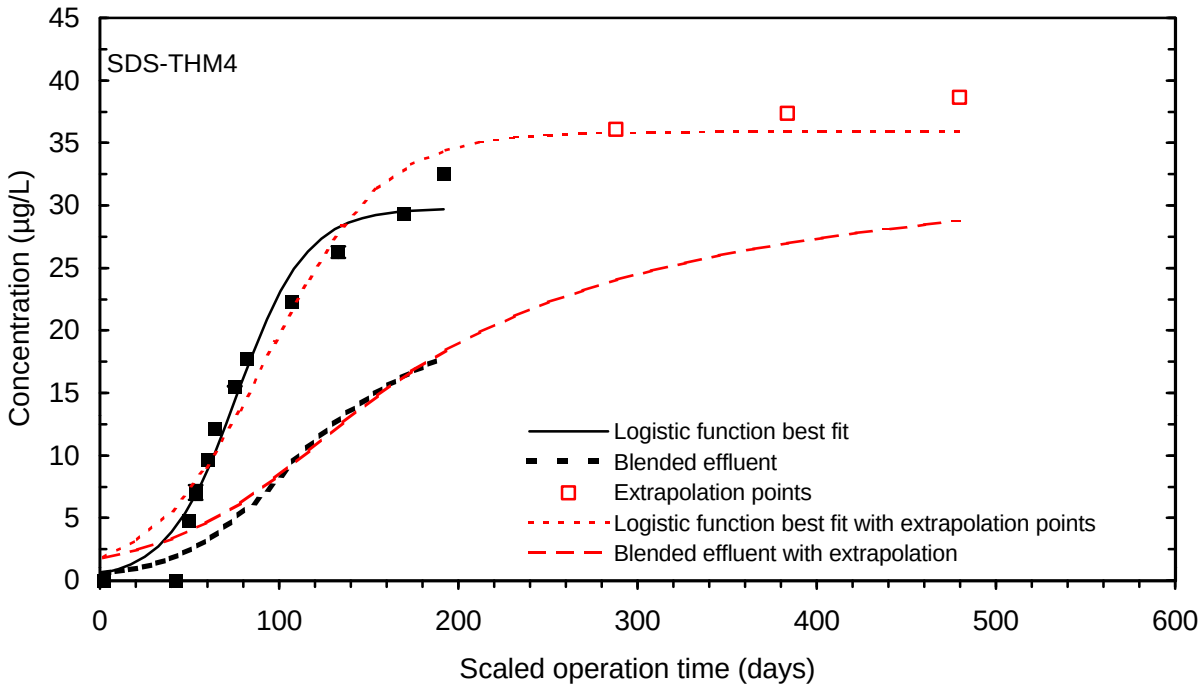


Figure 187 Single contactor and blended effluent extrapolated SDS-THM4 breakthrough curve (10 minute EBCT) during session 3, June

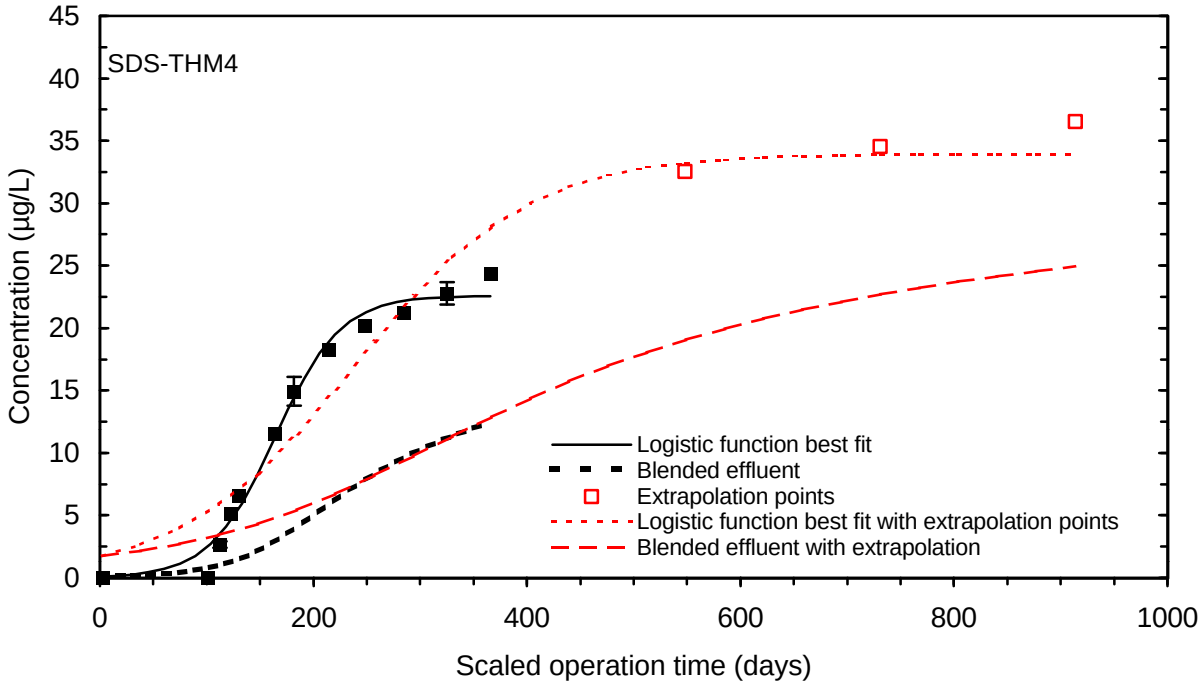


Figure 188 Single contactor and blended effluent extrapolated SDS-THM4 breakthrough curve (20 minute EBCT) during session 3, June

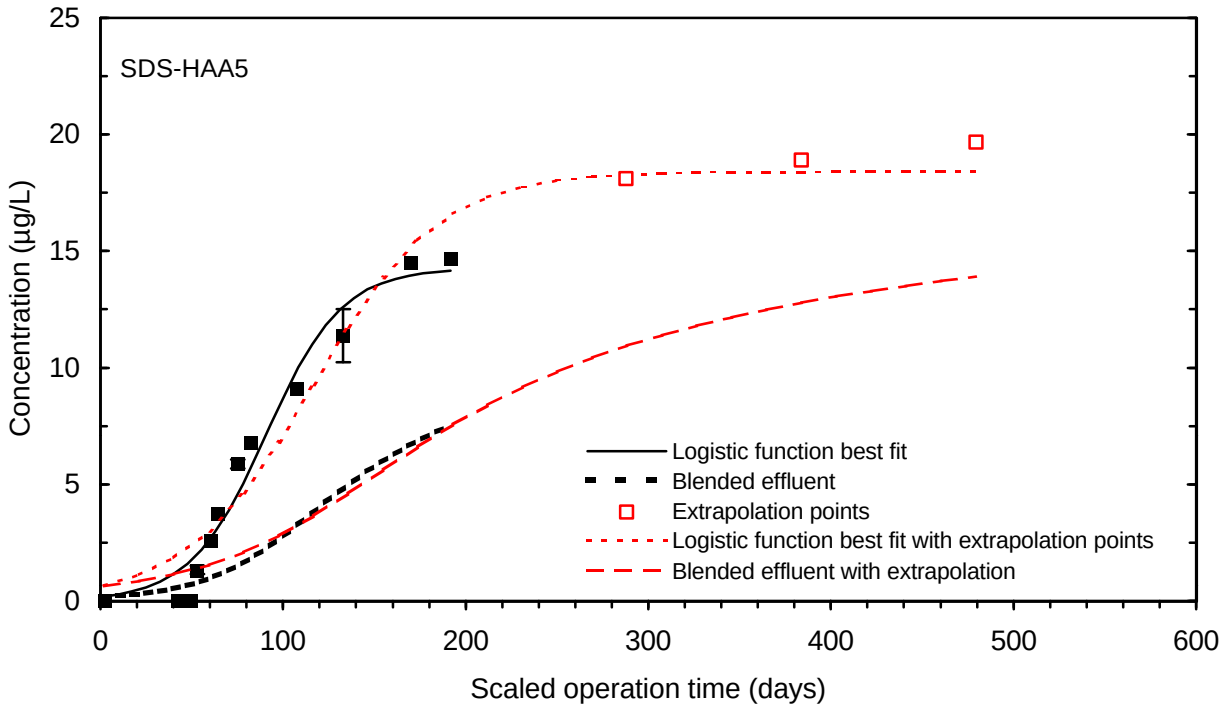


Figure 189 Single contactor and blended effluent extrapolated SDS-HAA5 breakthrough curve (10 minute EBCT) during session 3, June

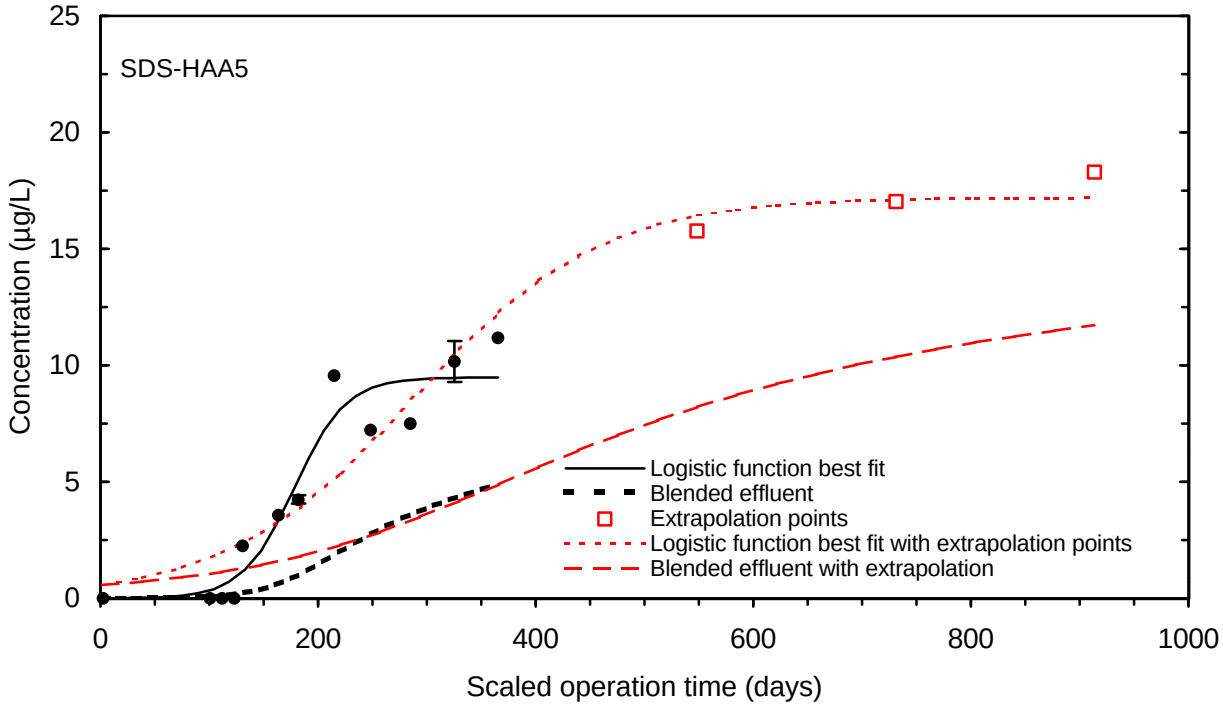


Figure 190 Single contactor and blended effluent extrapolated SDS-HAA5 breakthrough curve (20 minute EBCT) during session 3, June

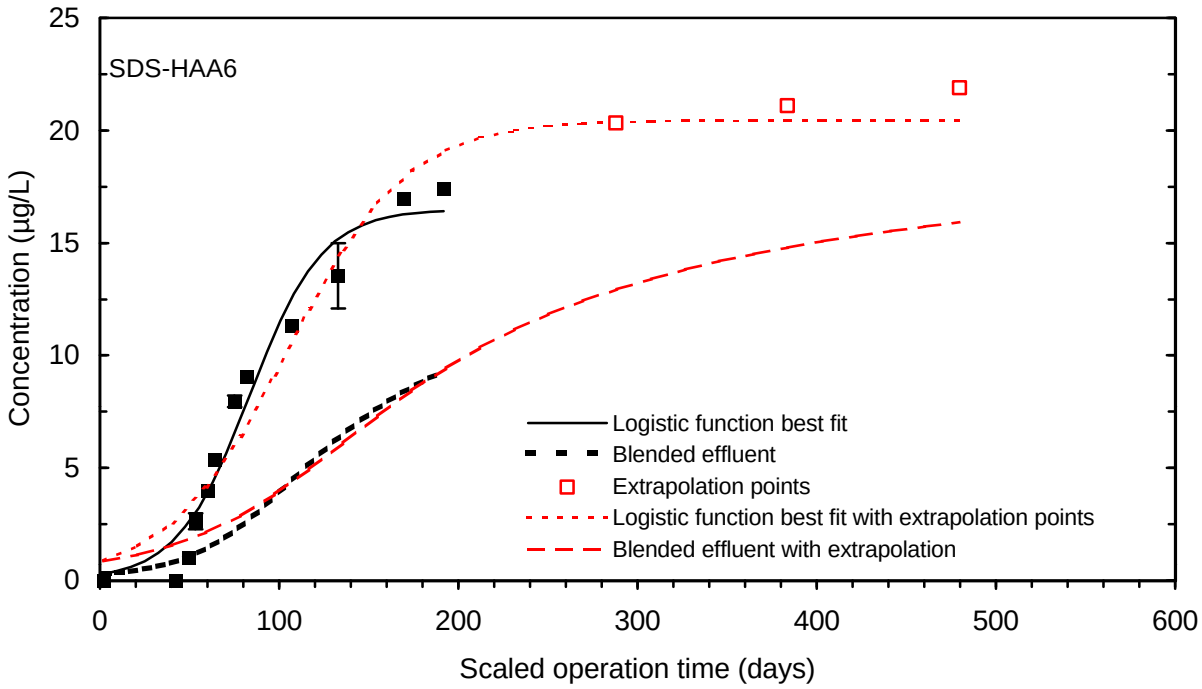


Figure 191 Single contactor and blended effluent extrapolated SDS-HAA6 breakthrough curve (10 minute EBCT) during session 3, June

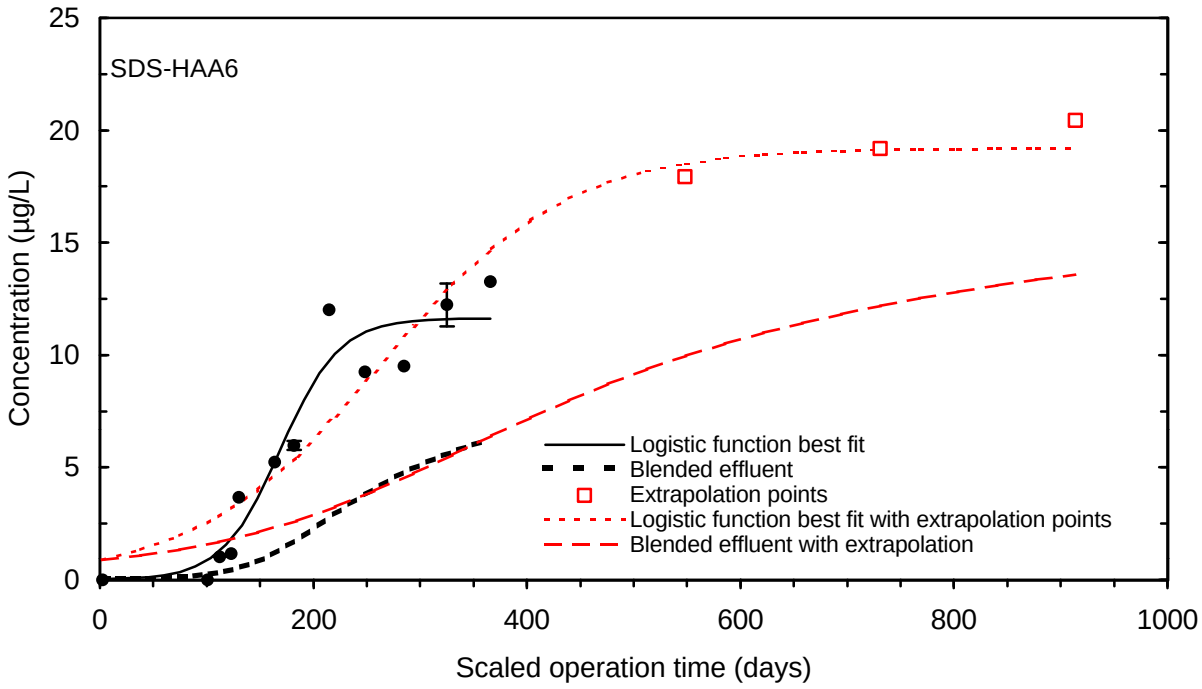


Figure 192 Single contactor and blended effluent extrapolated SDS-HAA6 breakthrough curve (20 minute EBCT) during session 3, June

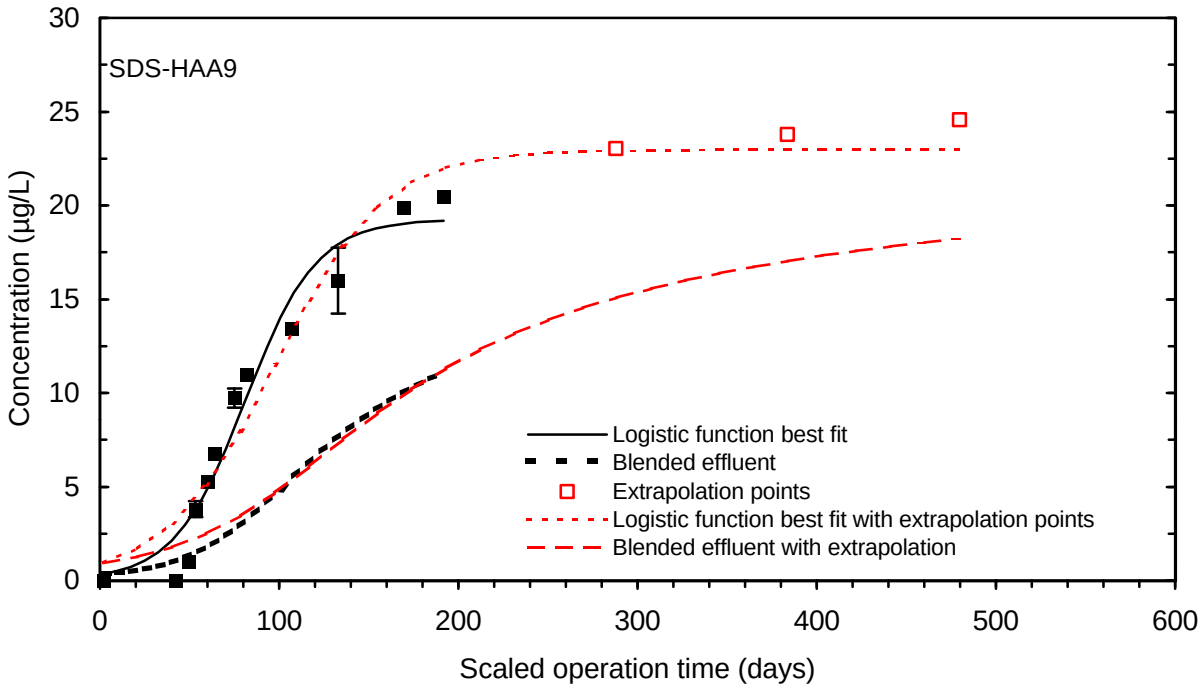


Figure 193 Single contactor and blended effluent extrapolated SDS-HAA9 breakthrough curve (10 minute EBCT) during session 3, June

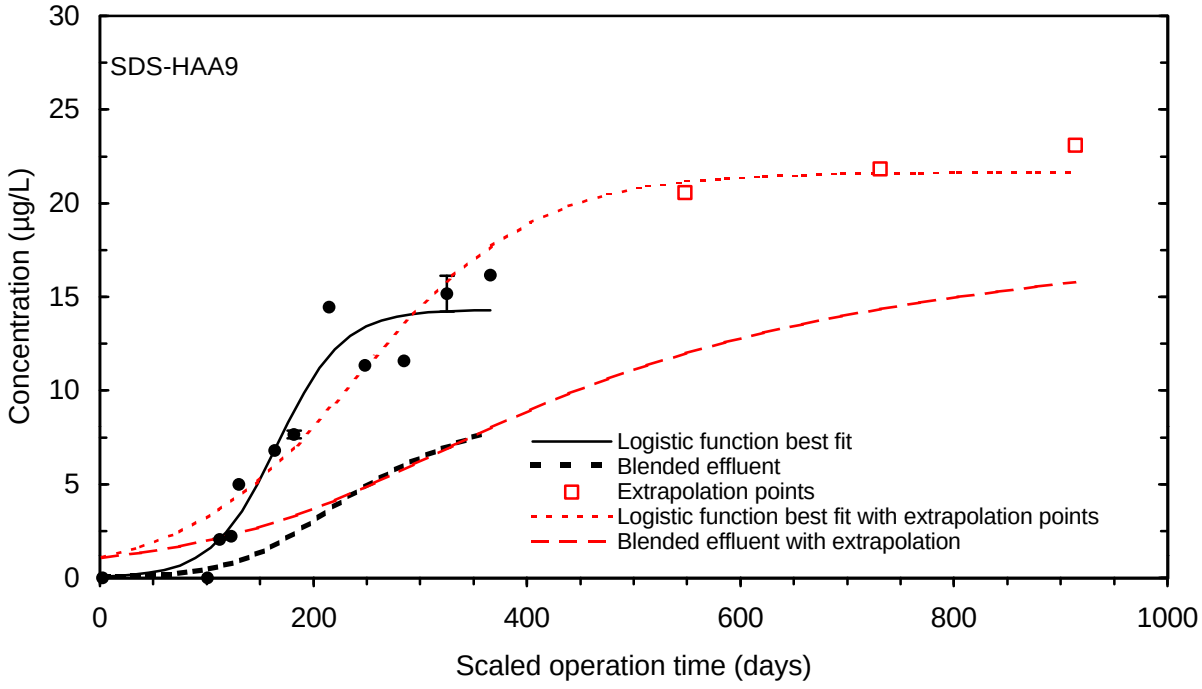


Figure 194 Single contactor and blended effluent extrapolated SDS-HAA9 breakthrough curve (20 minute EBCT) during session 3, June

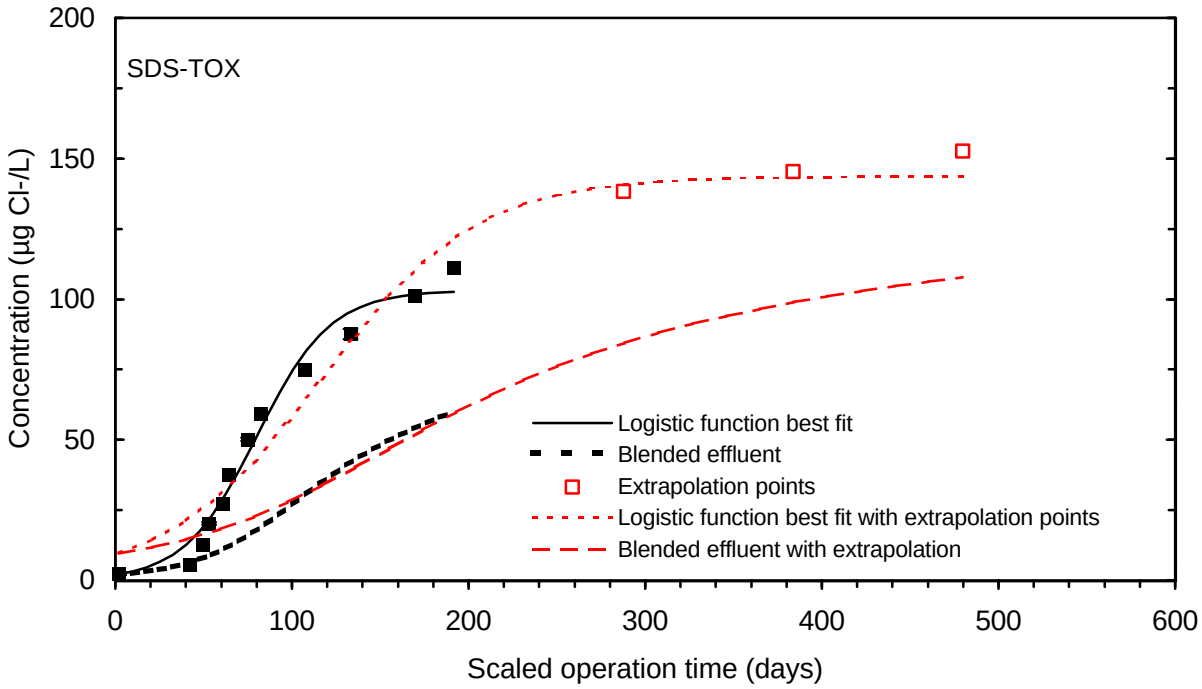


Figure 195 Single contactor and blended effluent extrapolated SDS-TOX breakthrough curve (10 minute EBCT) during session 3, June

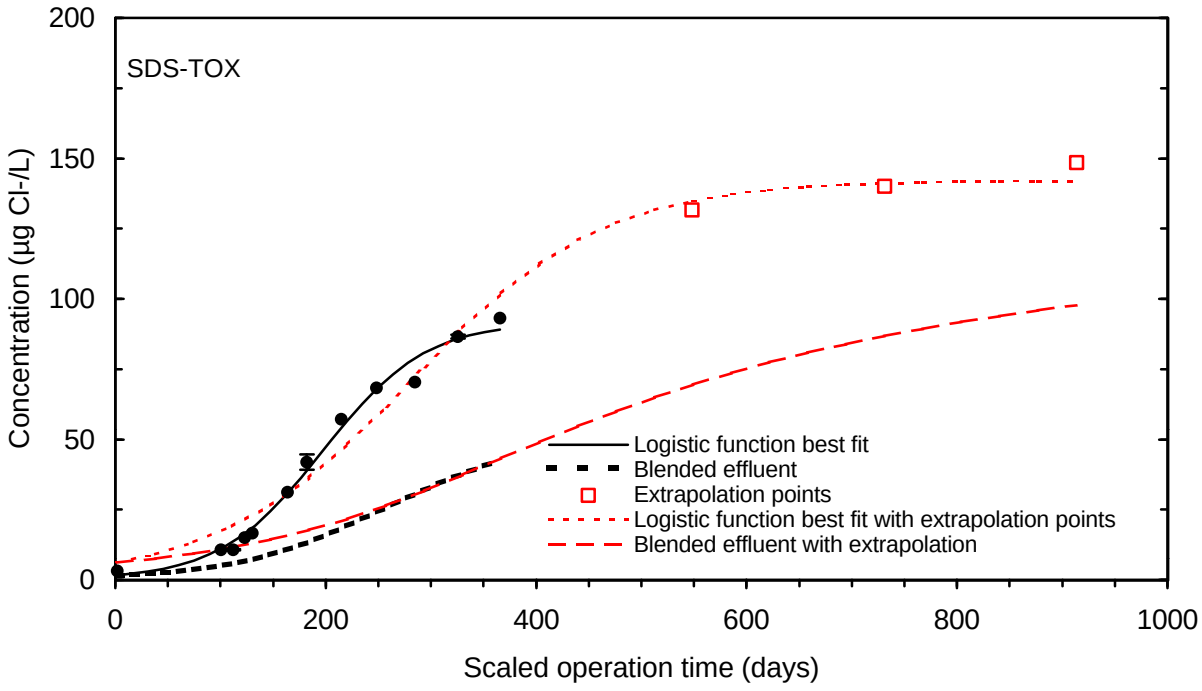


Figure 196 Single contactor and blended effluent extrapolated SDS-TOX breakthrough curve (20 minute EBCT) during session 3, June

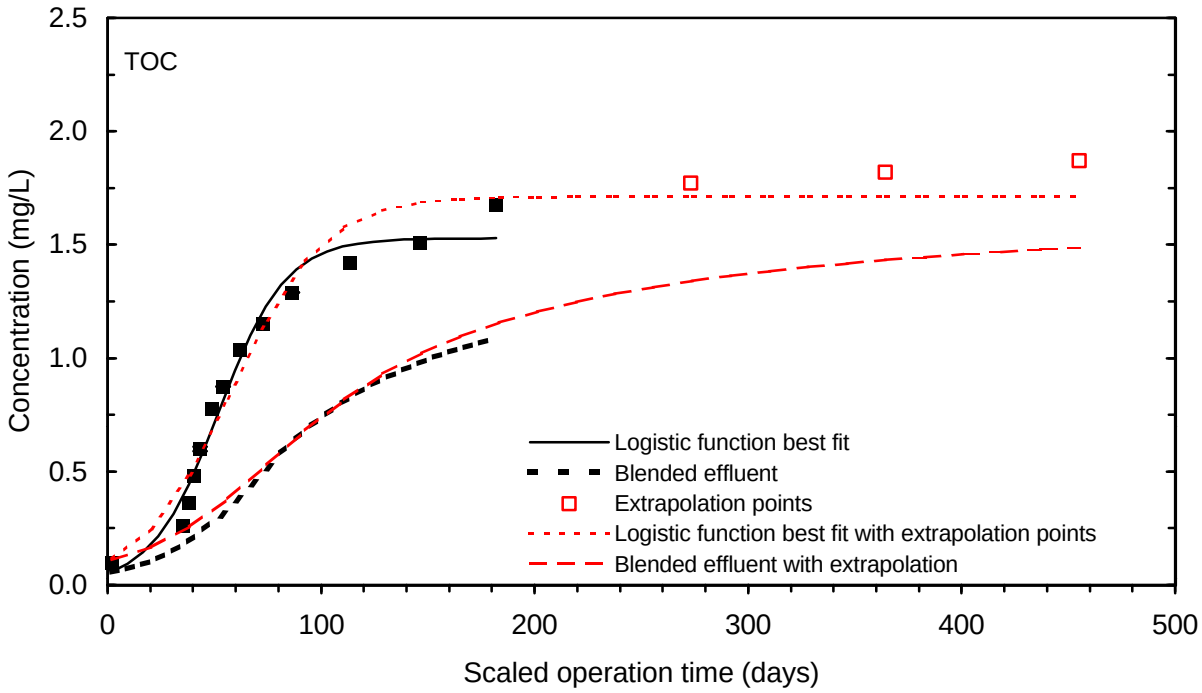


Figure 197 Single contactor and blended effluent extrapolated TOC breakthrough curve (7.2 minute EBCT) during session 4, October

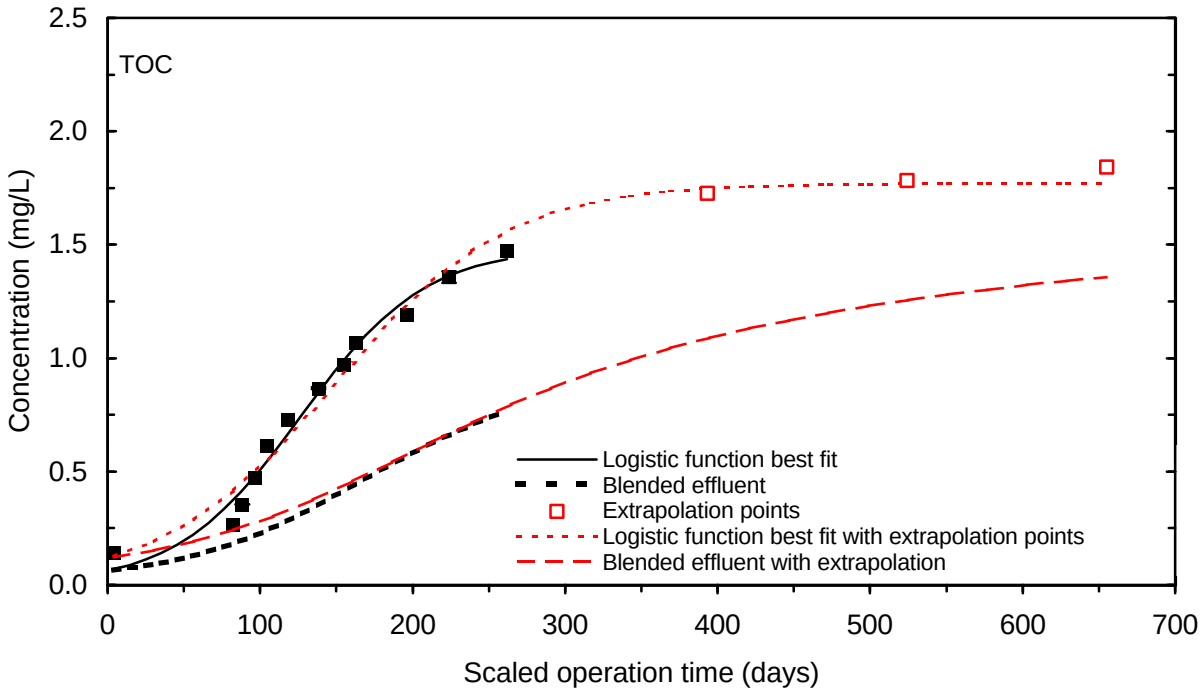


Figure 198 Single contactor and blended effluent extrapolated TOC breakthrough curve (14.4 minute EBCT) during session 4, October

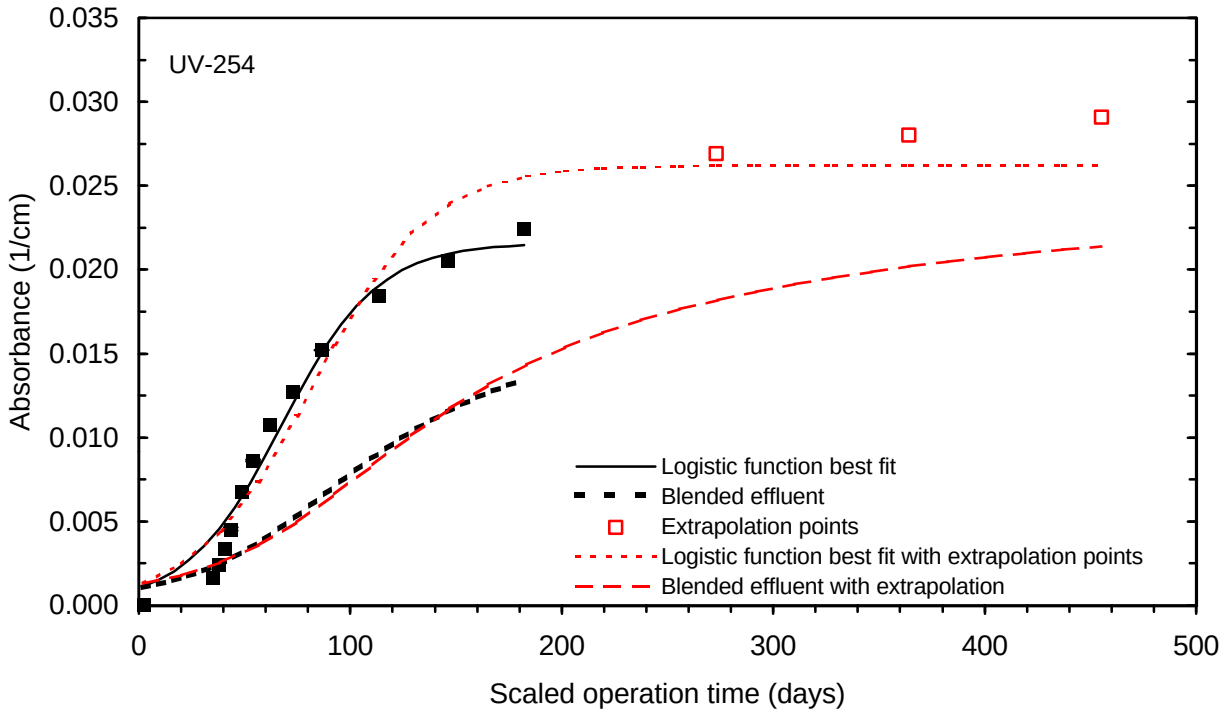


Figure 199 Single contactor and blended effluent extrapolated UV-254 breakthrough curve (7.2 minute EBCT) during session 4, October

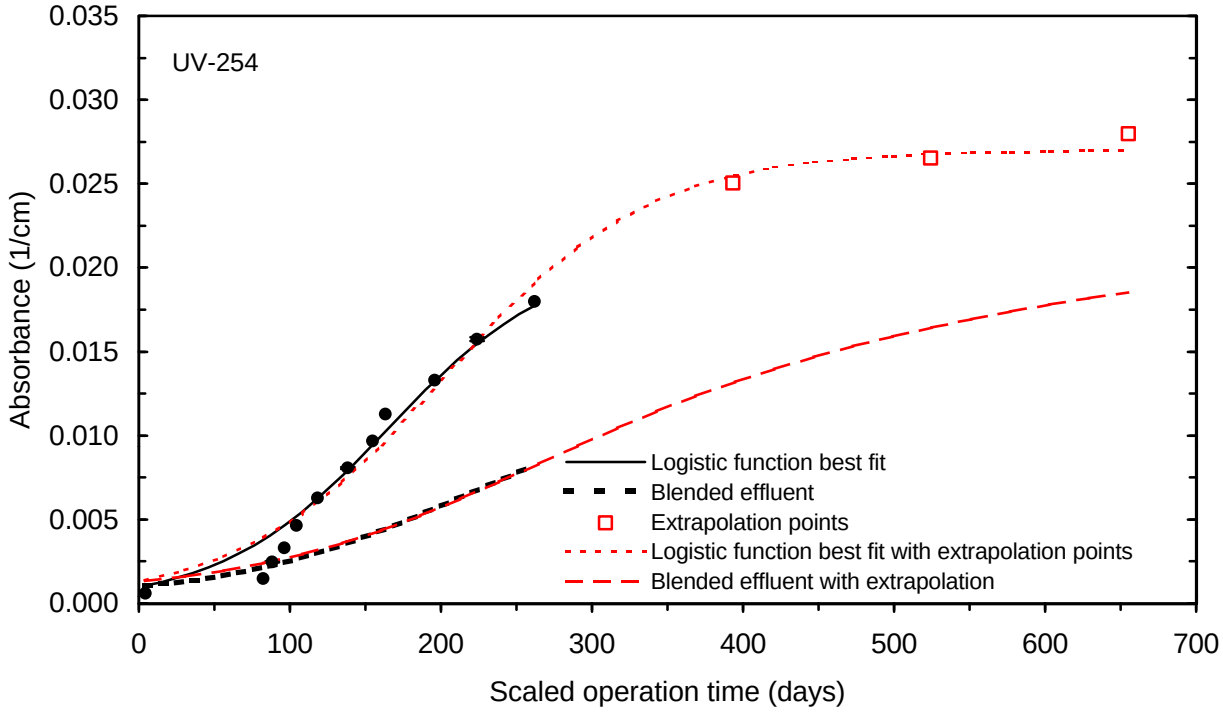


Figure 200 Single contactor and blended effluent extrapolated UV-254 breakthrough curve (14.4 minute EBCT) during session 4, October

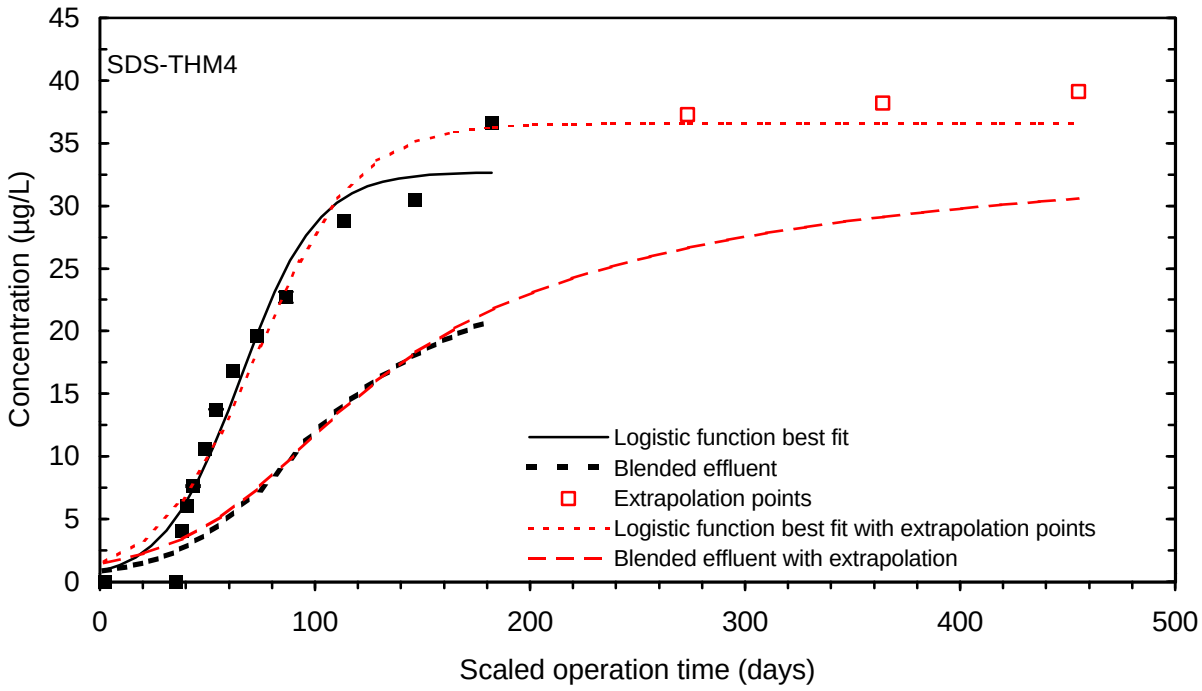


Figure 201 Single contactor and blended effluent extrapolated SDS-THM4 breakthrough curve (7.2 minute EBCT) during session 4, October

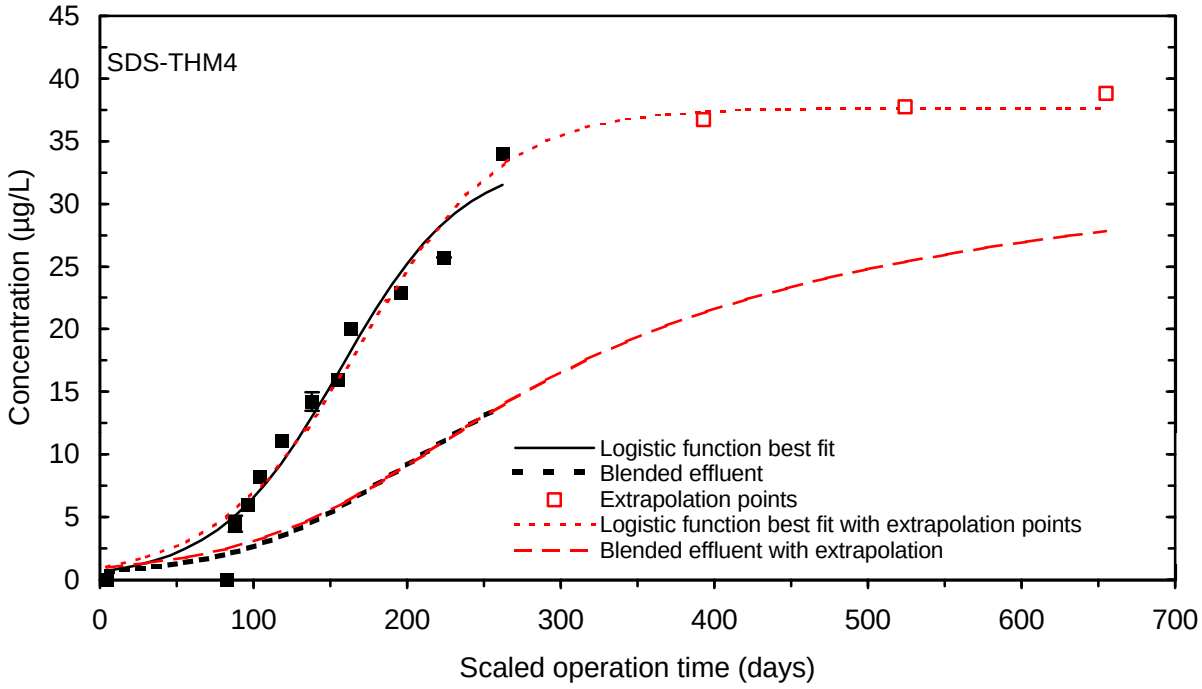


Figure 202 Single contactor and blended effluent extrapolated SDS-THM4 breakthrough curve (14.4 minute EBCT) during session 4, October

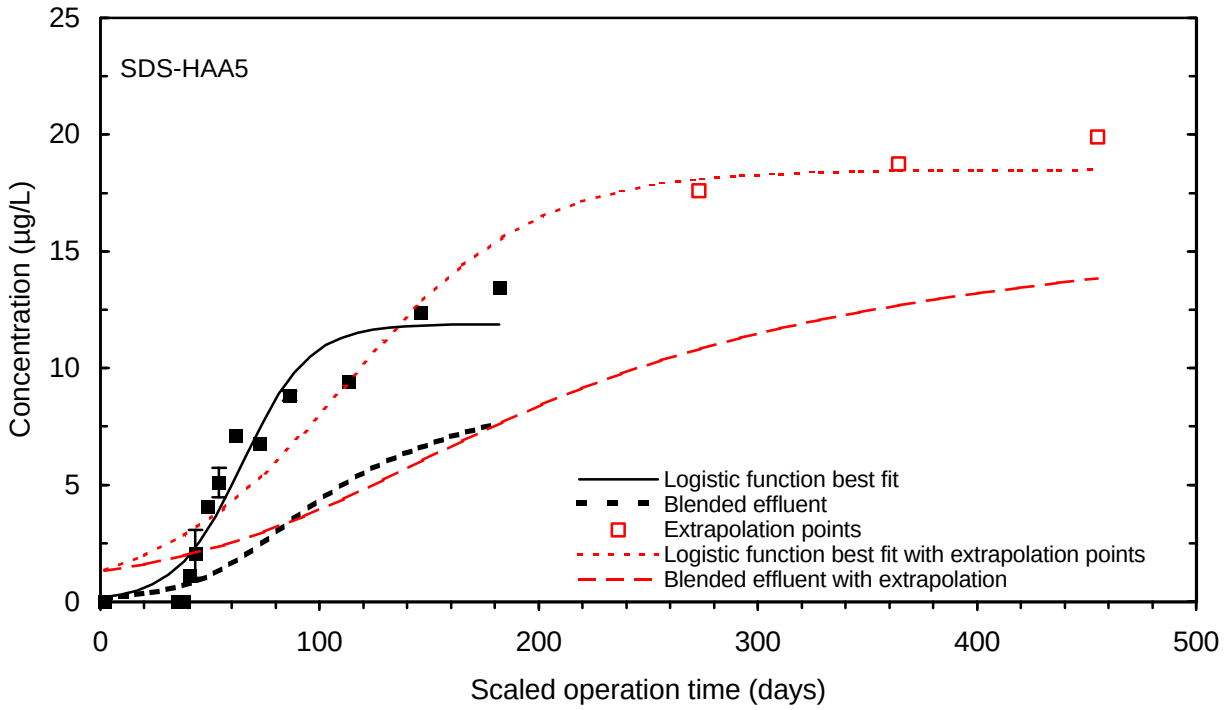


Figure 203 Single contactor and blended effluent extrapolated SDS-HAA5 breakthrough curve (7.2 minute EBCT) during session 4, October

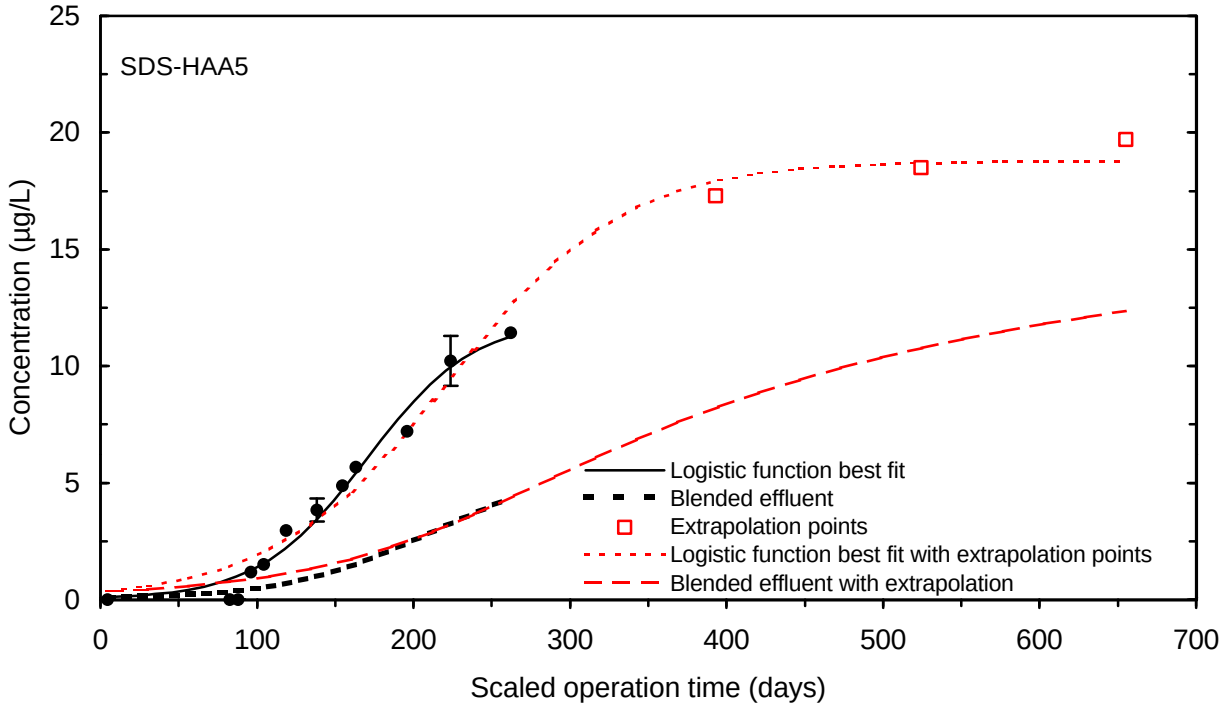


Figure 204 Single contactor and blended effluent extrapolated SDS-HAA5 breakthrough curve (14.4 minute EBCT) during session 4, October

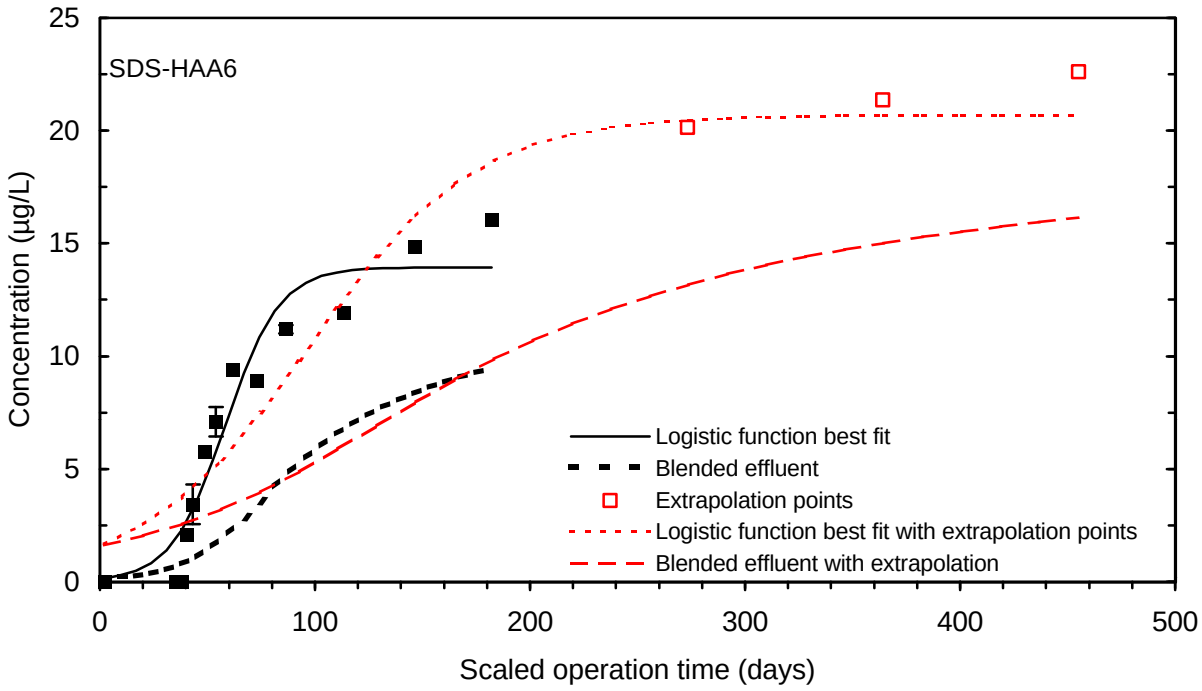


Figure 205 Single contactor and blended effluent extrapolated SDS-HAA6 breakthrough curve (7.2 minute EBCT) during session 4, October

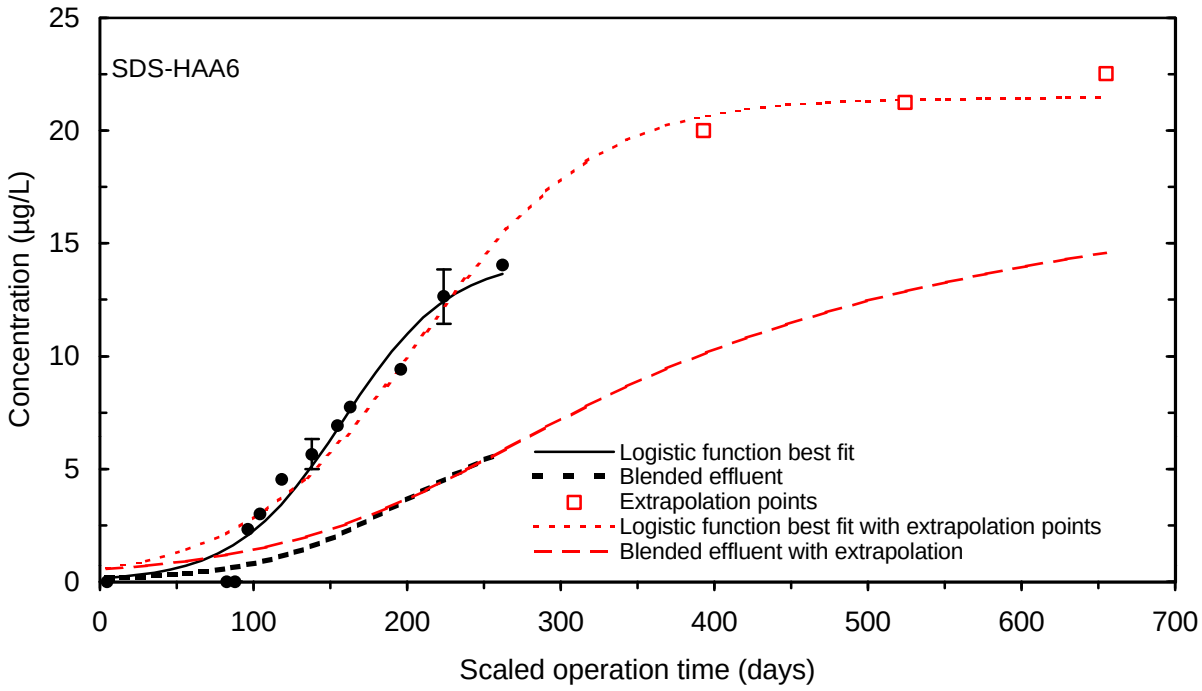


Figure 206 Single contactor and blended effluent extrapolated SDS-HAA6 breakthrough curve (14.4 minute EBCT) during session 4, October

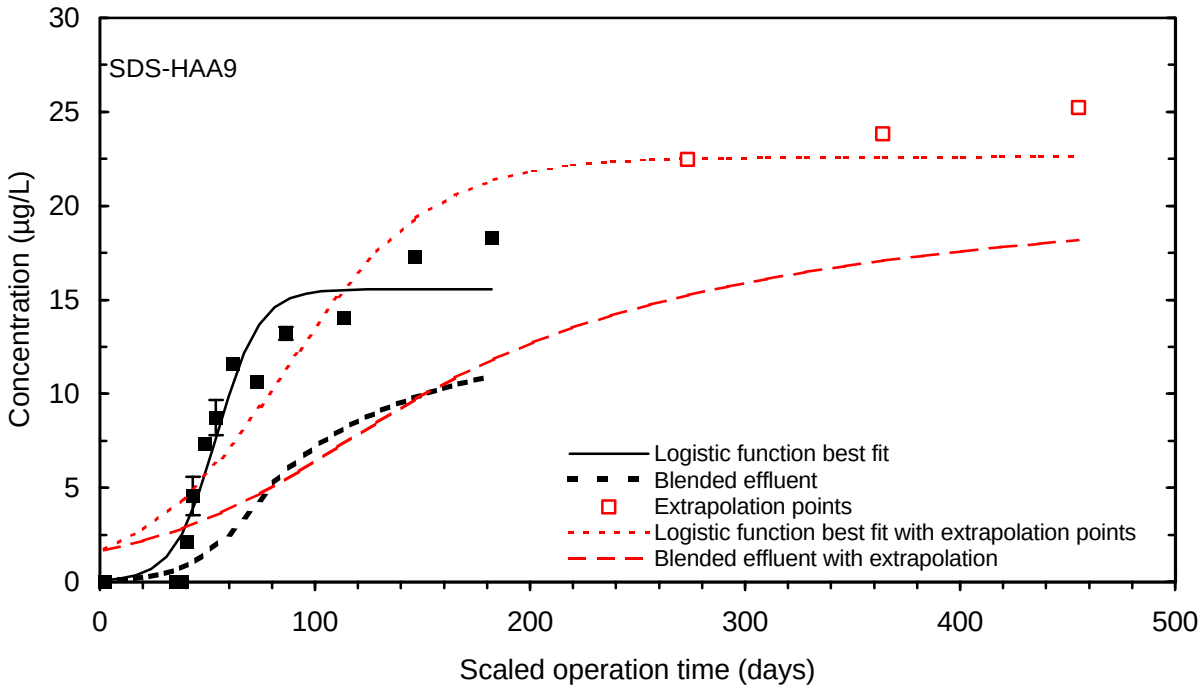


Figure 207 Single contactor and blended effluent extrapolated SDS-HAA9 breakthrough curve (7.2 minute EBCT) during session 4, October

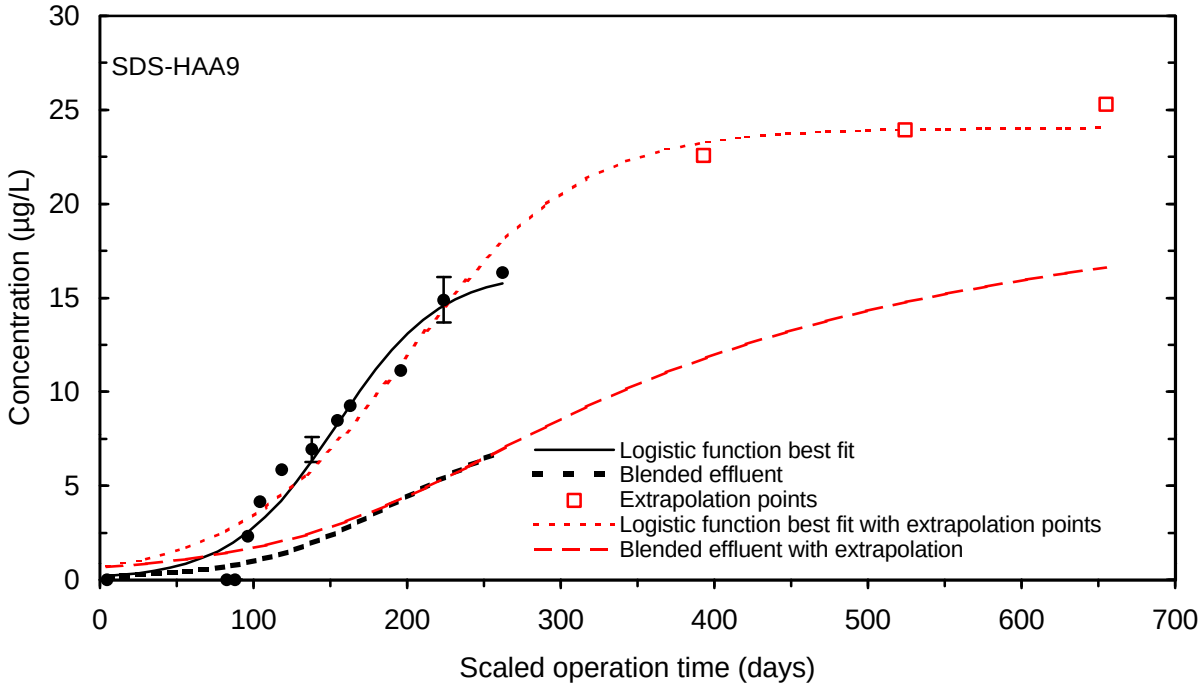


Figure 208 Single contactor and blended effluent extrapolated SDS-HAA9 breakthrough curve (14.4 minute EBCT) during session 4, October

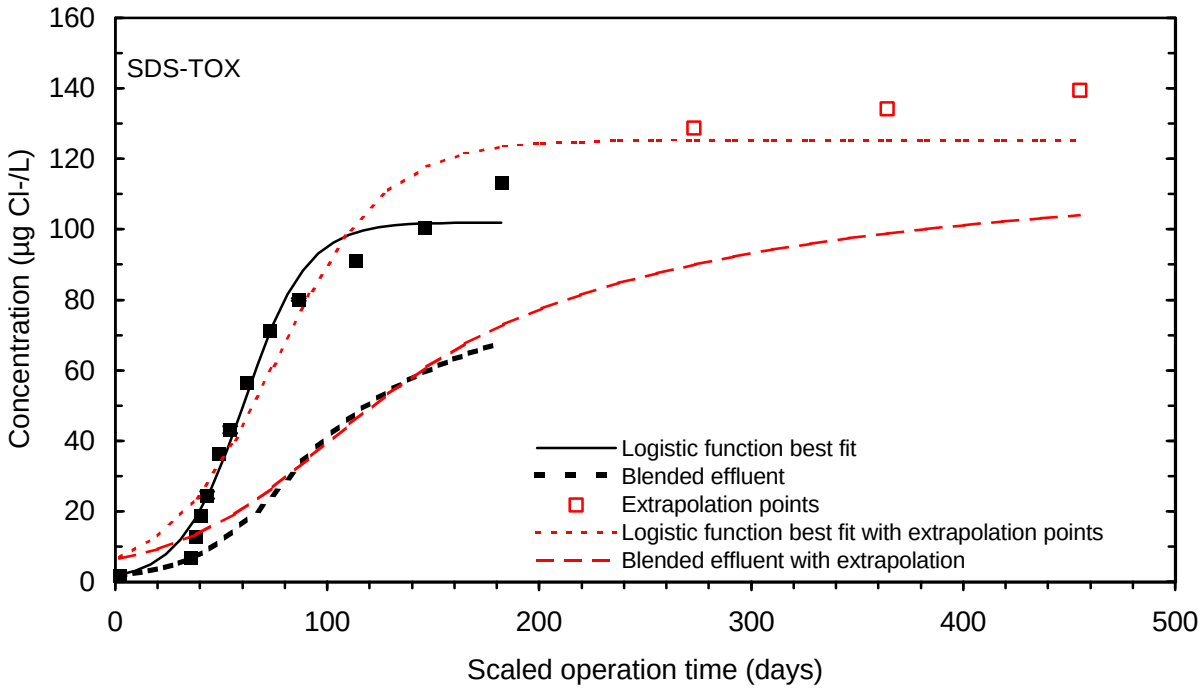


Figure 209 Single contactor and blended effluent extrapolated SDS-TOX breakthrough curve (7.2 minute EBCT) during session 4, October

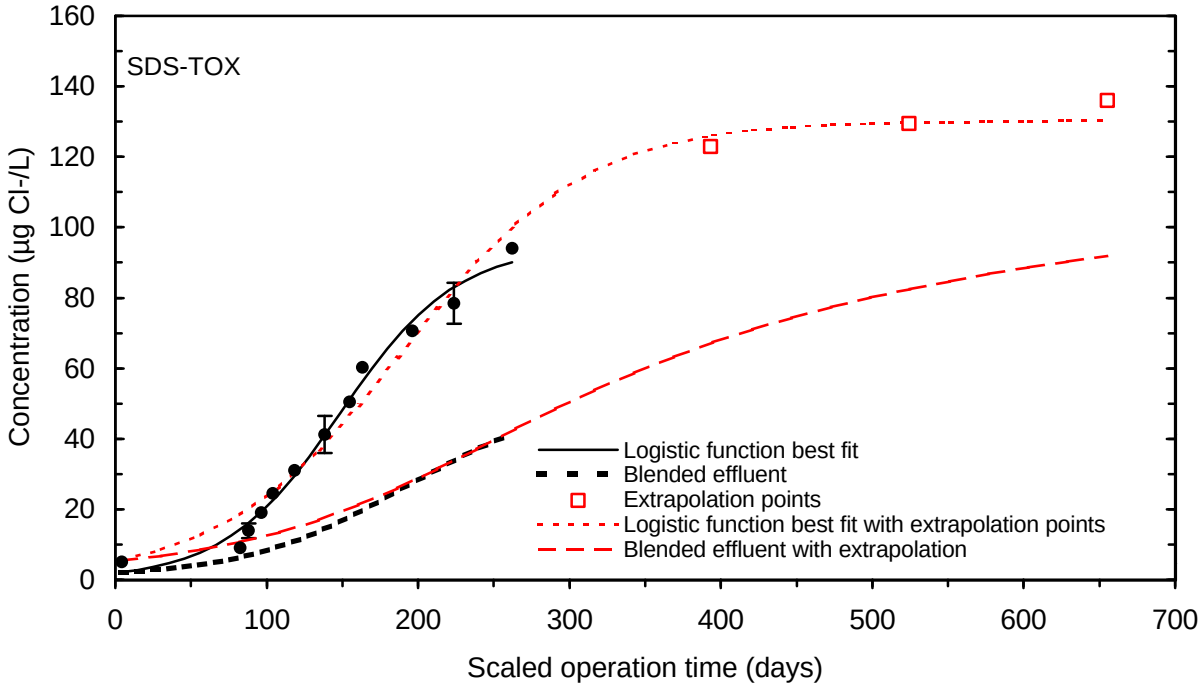


Figure 210 Single contactor and blended effluent extrapolated SDS-TOX breakthrough curve (14.4 minute EBCT) during session 4, October

11 *Normalized DBP Precursor Breakthrough*

11 Normalized DBP Precursor Breakthrough

An additional method of analyzing GAC breakthrough data is to divide the GAC effluent concentrations of each parameter by their respective GAC influent concentrations. The relative breakthrough patterns of each parameter can then be compared on a fraction breakthrough level. This type of analysis helps determine whether surrogates for DBP precursor breakthrough, such as TOC and UV_{254}, are reliable indicators of DBP precursor breakthrough. An analysis of the extent to which the surrogates can be classified as conservative indicators of specific DBP precursor breakthrough is also useful.

The normalized breakthrough patterns for all parameters (DBP surrogates and SDS-DBPs) for the 10 minute contactor run during the January session are shown in Figure 211. Relatively high initial relative levels of chlorine demand were present, due to inorganic chlorine demand. Initially, the normalized breakthrough of TOC was a conservative indicator of normalized SDS-DBP breakthrough. However, after 150 days of scaled operation time, the normalized breakthrough of SDS-THM4 exceeded that for TOC. Normalized UV_{254} served as a strong indicator of normalized SDS-TOX breakthrough, matching the SDS-TOX breakthrough pattern closely. Normalized SDS-HAA breakthrough occurred later than that for UV_{254}, in general. Similar patterns were observed for the January session 20 minute EBCT contactor (Figure 212). TOC served as a conservative indicator for normalized SDS-THM4 breakthrough through 250 days of operation, after which normalized SDS-THM4 breakthrough matched that for TOC closely.

During the April session 10 minute EBCT run, Figure 213, TOC served as a conservative indicator of SDS-DBP breakthrough throughout the entire run. TOC also served as a conservative indicator of SDS-DBP breakthrough for the 20 minute EBCT run (Figure 214), although normalized SDS-HAA breakthrough exceeded that for TOC at one sample point. During the June session 10 minute EBCT run, normalized SDS-THM4 and SDS-HAA breakthrough only exceeded that for TOC at the very end of the run, as shown in Figure 215. As has been observed earlier during other sessions, normalized UV_{254} and SDS-TOX breakthrough matched each other closely. For the 20 minute EBCT run, normalized TOC breakthrough was exceeded only at one sample point during the run. As shown in Figure 216, normalized TOC breakthrough served as a conservative indicator of SDS-DBP breakthrough. For both the 7.2 and 14.4 minute EBCT contactors operated during the October session (Figures 217 and 218), normalized SDS-THM4 breakthrough exceeded that for TOC only at the very end of each run. Otherwise, TOC was a conservative indicator of SDS-DBP breakthrough.

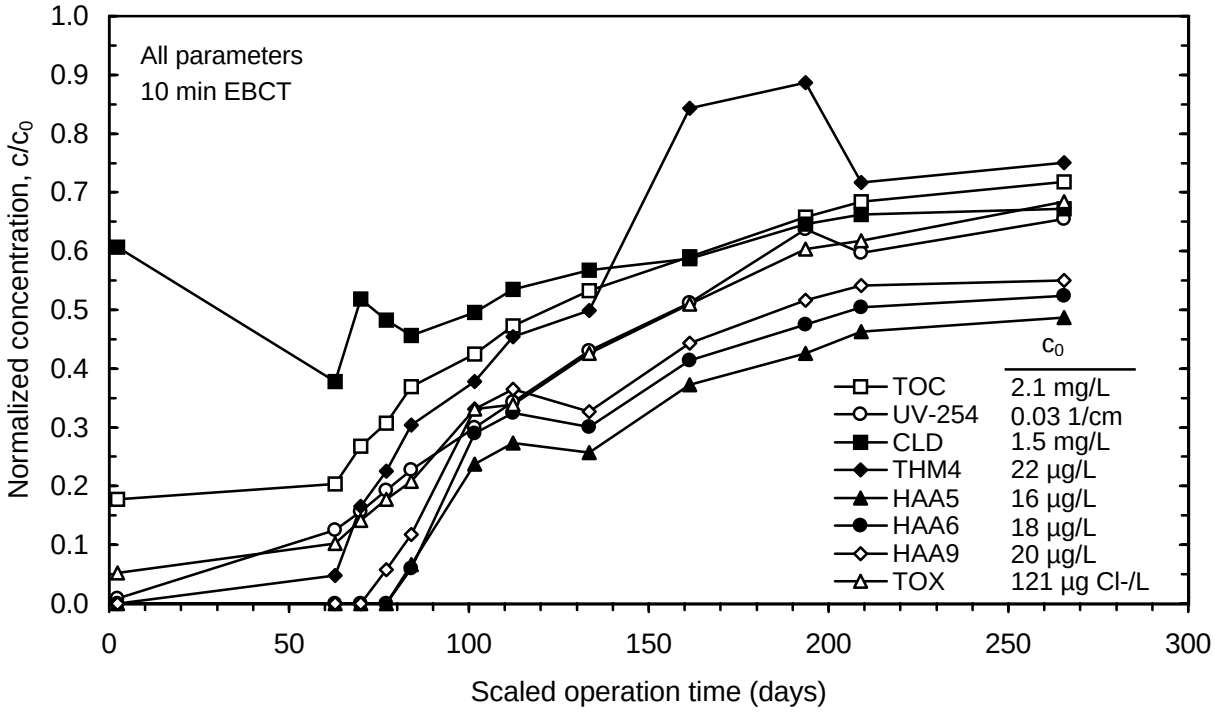


Figure 211 Normalized breakthrough patterns (10 minute EBCT) during session 1, January

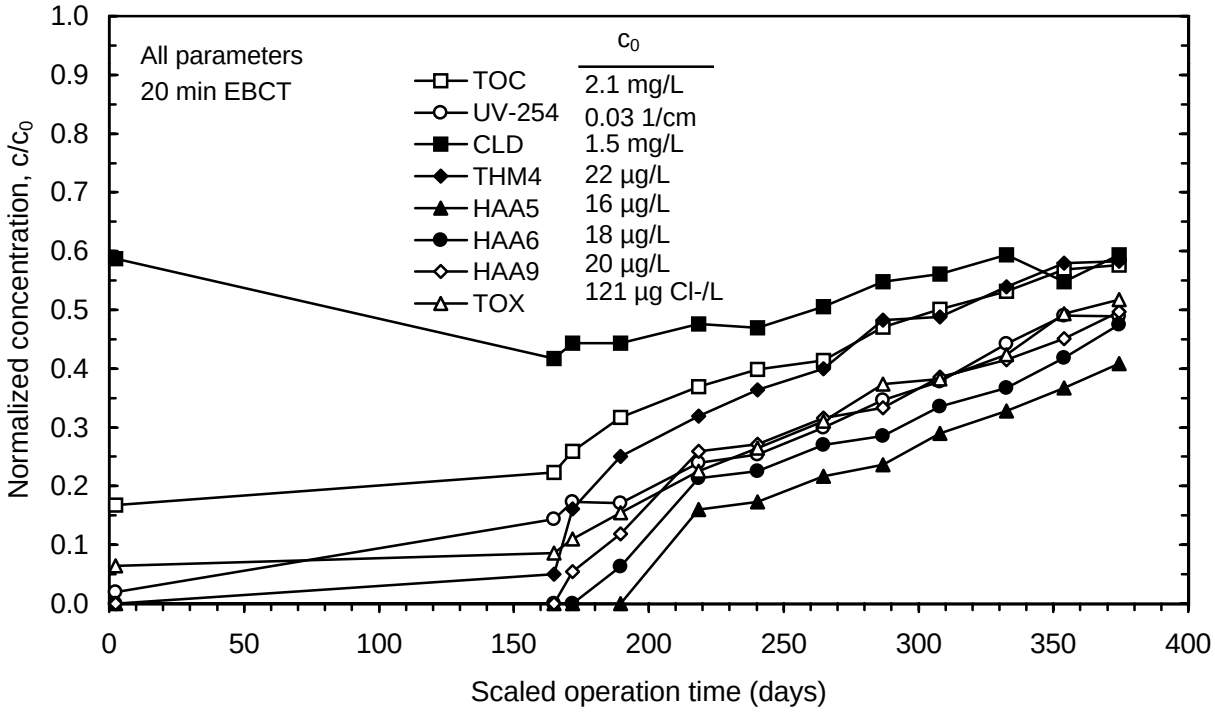


Figure 212 Normalized breakthrough patterns (20 minute EBCT) during session 1, January

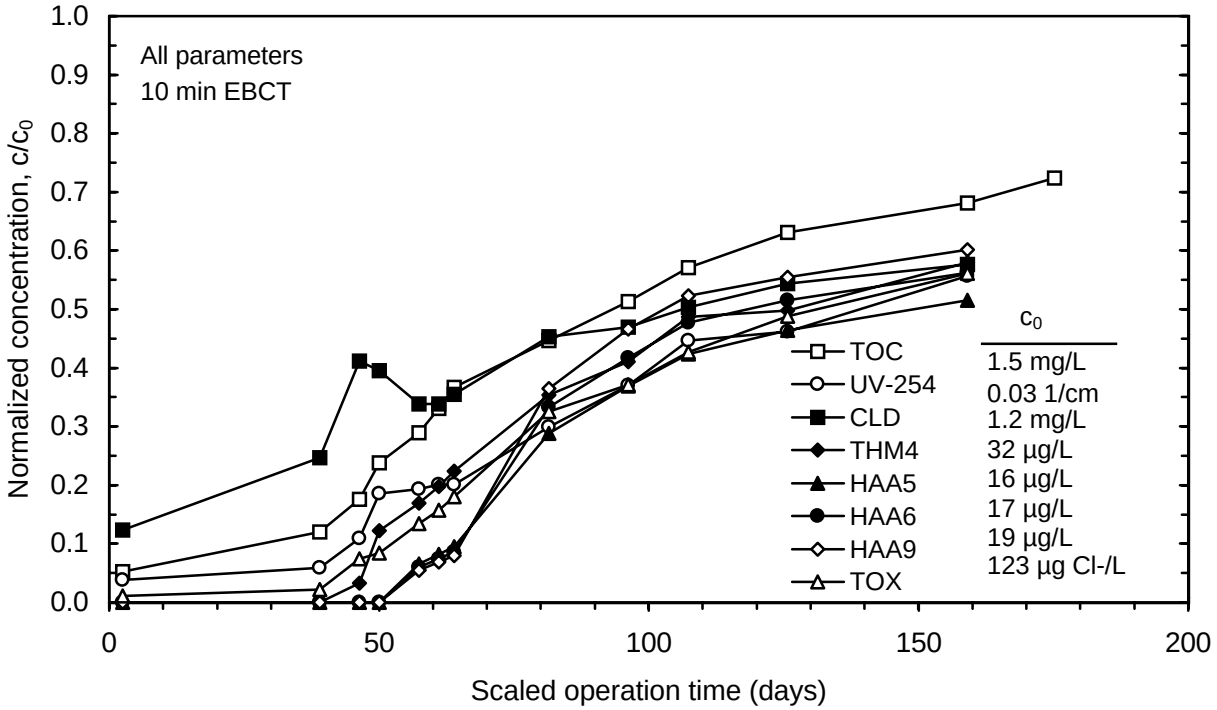


Figure 213 Normalized breakthrough patterns (10 minute EBCT) during session 2, April

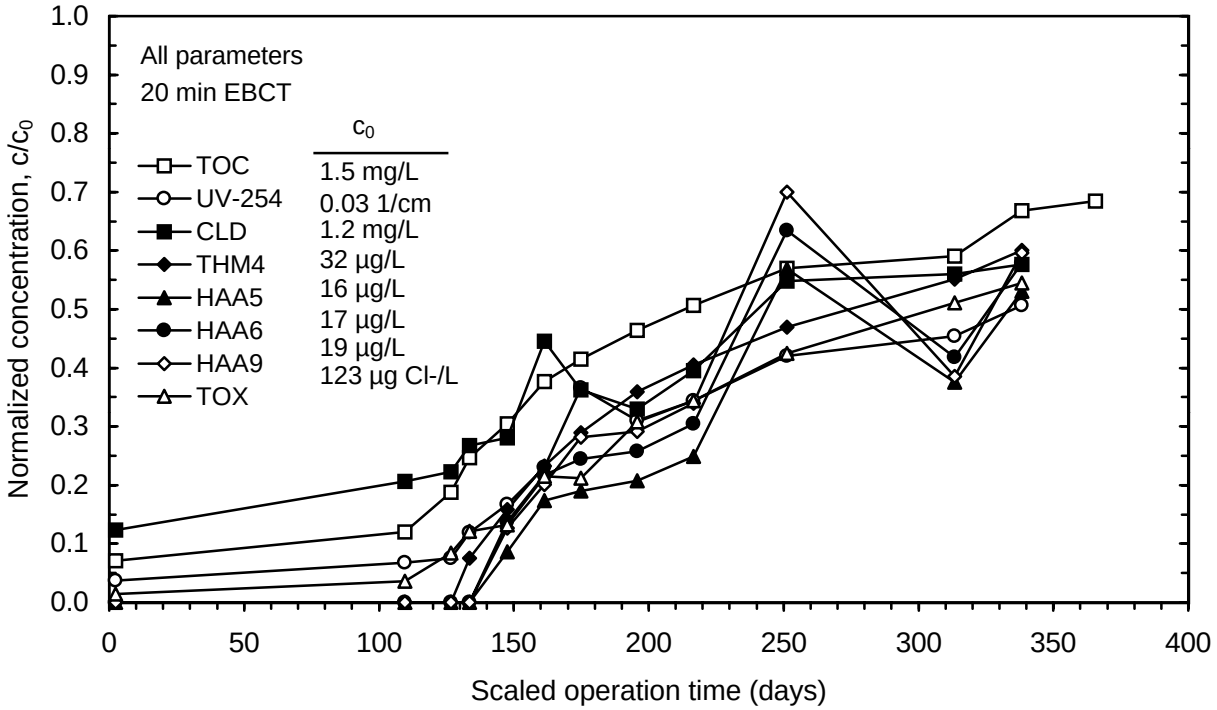


Figure 214 Normalized breakthrough patterns (20 minute EBCT) during session 2, April

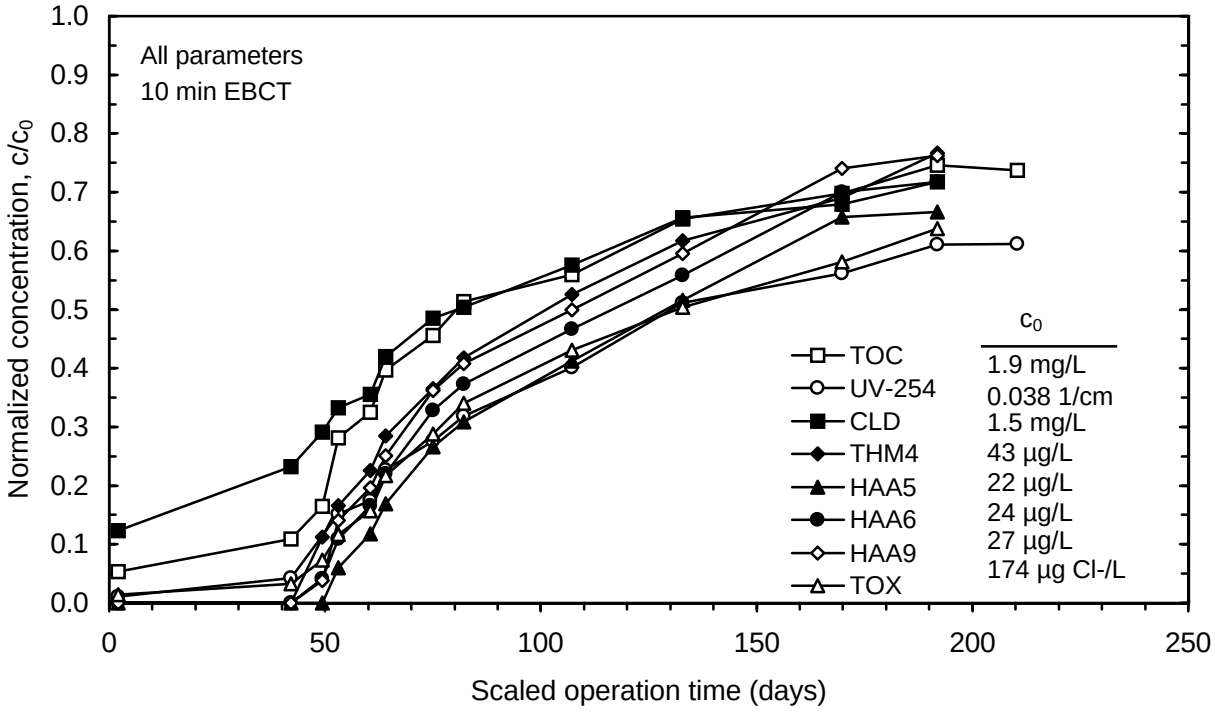


Figure 215 Normalized breakthrough patterns (10 minute EBCT) during session 3, June

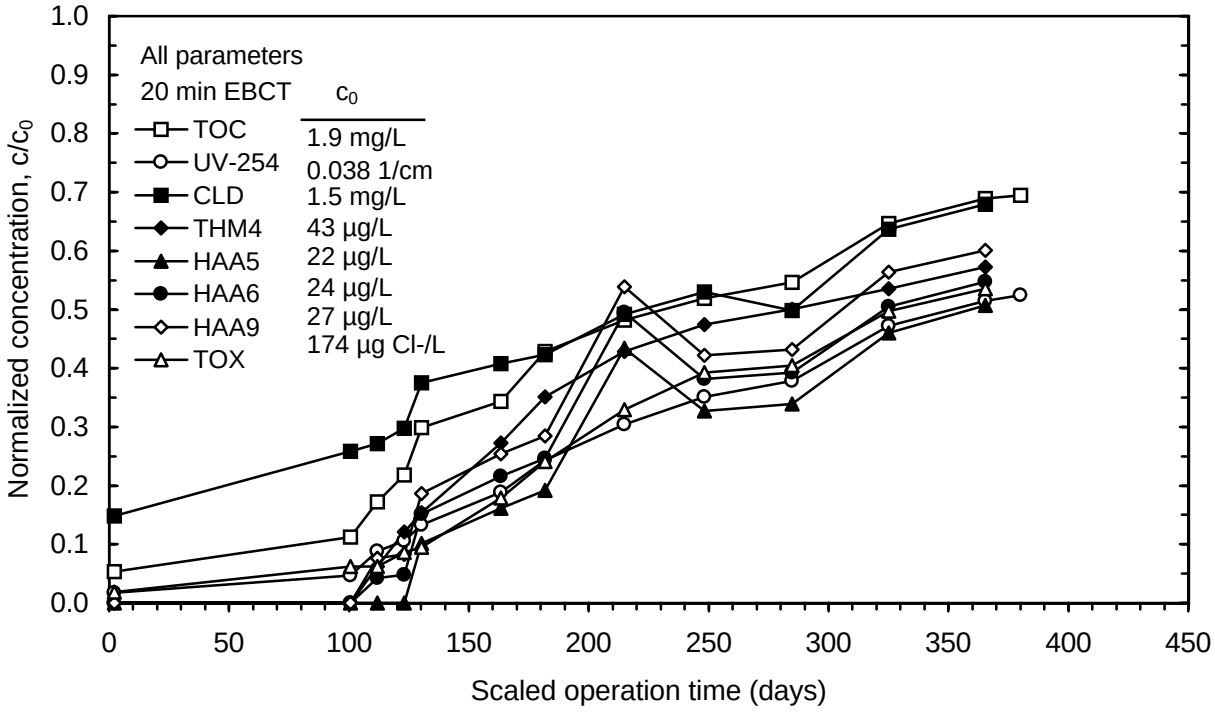


Figure 216 Normalized breakthrough patterns (20 minute EBCT) during session 3, June

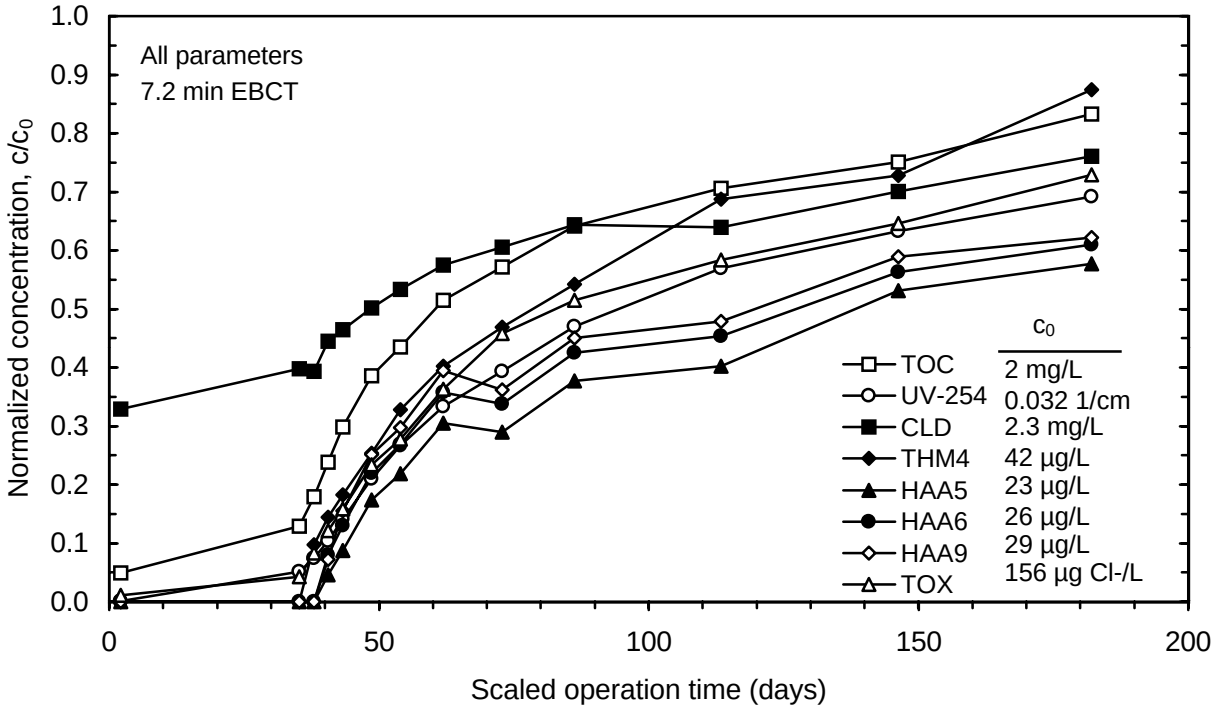


Figure 217 Normalized breakthrough patterns (7.2 minute EBCT) during session 4, October

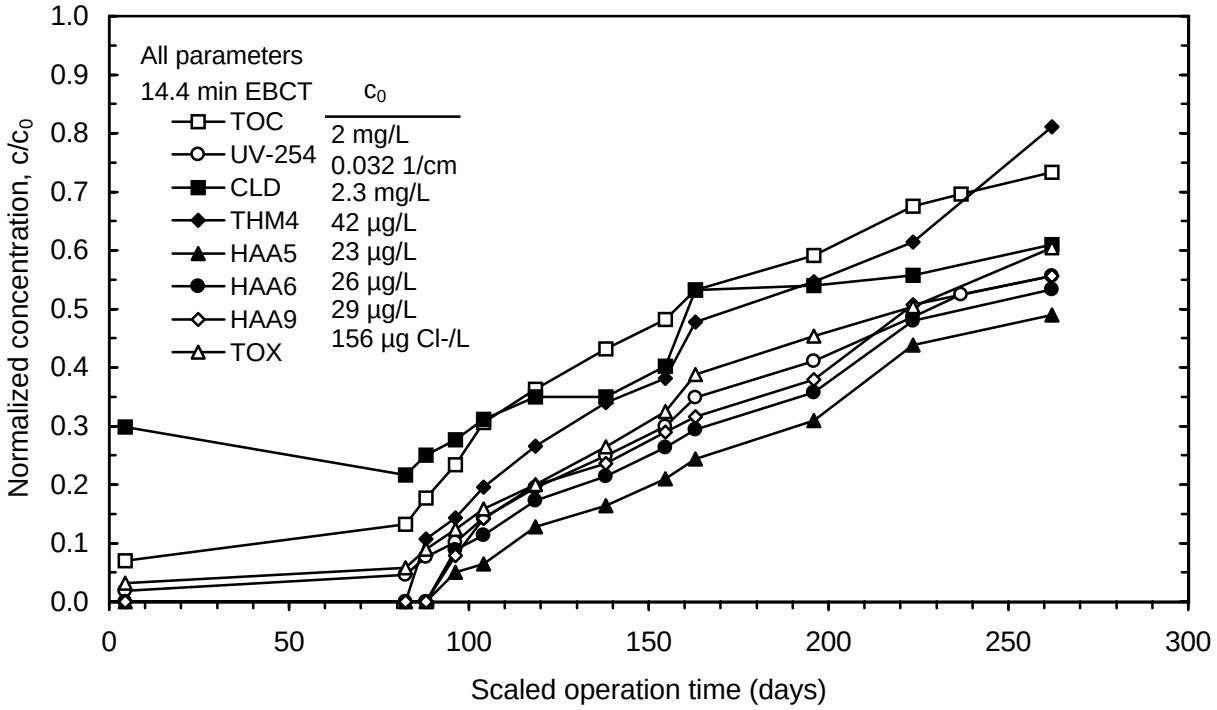


Figure 218 Normalized breakthrough patterns (14.4 minute EBCT) during session 4, October

12 *TOC-DBP and UV_{254}-DBP Relationships*

12 TOC-DBP and UV_{254}-DBP Relationships

Paired concentration plots of GAC effluent SDS-THM4, SDS-HAA5, SDS-HAA6, SDS-HAA9, and SDS-TOX against GAC effluent TOC and UV_{254} were generated on a concentration and on a normalized (fraction breakthrough) basis. These plots are summarized in Figures 219 through 222. Both EBCTs evaluated and all sessions are presented on the same plots. In general, TOC and UV_{254} served as good predictors of GAC effluent DBP formation regardless of season or EBCT. The graphs summarized in Figure 219 show that the correlation between TOC and SDS-THM4 during the January session yielded lower levels of formed THM4 per mg TOC than the remaining runs. This effect may have been an impact of the season or the SDS incubation temperature used, which was lower during the January. The correlation between SDS-HAA and TOC also showed that the SDS-HAA yield per mg TOC was lower during the January session. The same effect was apparent for SDS-TOX. There was no apparent impact of EBCT on the correlation between TOC and SDS-DBPs. Similar results were observed for the correlations between UV_{254} and SDS-DBPs, shown in Figure 220.

In the paired normalized concentration data plots shown in Figures 221 and 222, a line with a slope of 1 and y-intercept of 0 is also plotted. The general trend of the data in comparison to this line indicates whether the fraction breakthrough of the surrogate parameter (TOC or UV_{254}) directly predicts the fraction breakthrough of the formed DBP (data falls on the line), serves as a conservative indicator of the formed DBP breakthrough (data falls below the line), or under predicts the breakthrough of the formed DBP (data falls above the line). TOC served as a conservative indicator for SDS-THM4, SDS-HAA, and SDS-TOX breakthrough. UV_{254} directly predicted the breakthrough of SDS-TOX and SDS-HAA (except at the beginning of the run). For SDS-TOX, UV_{254} served as an excellent direct predictor regardless of session or EBCT.

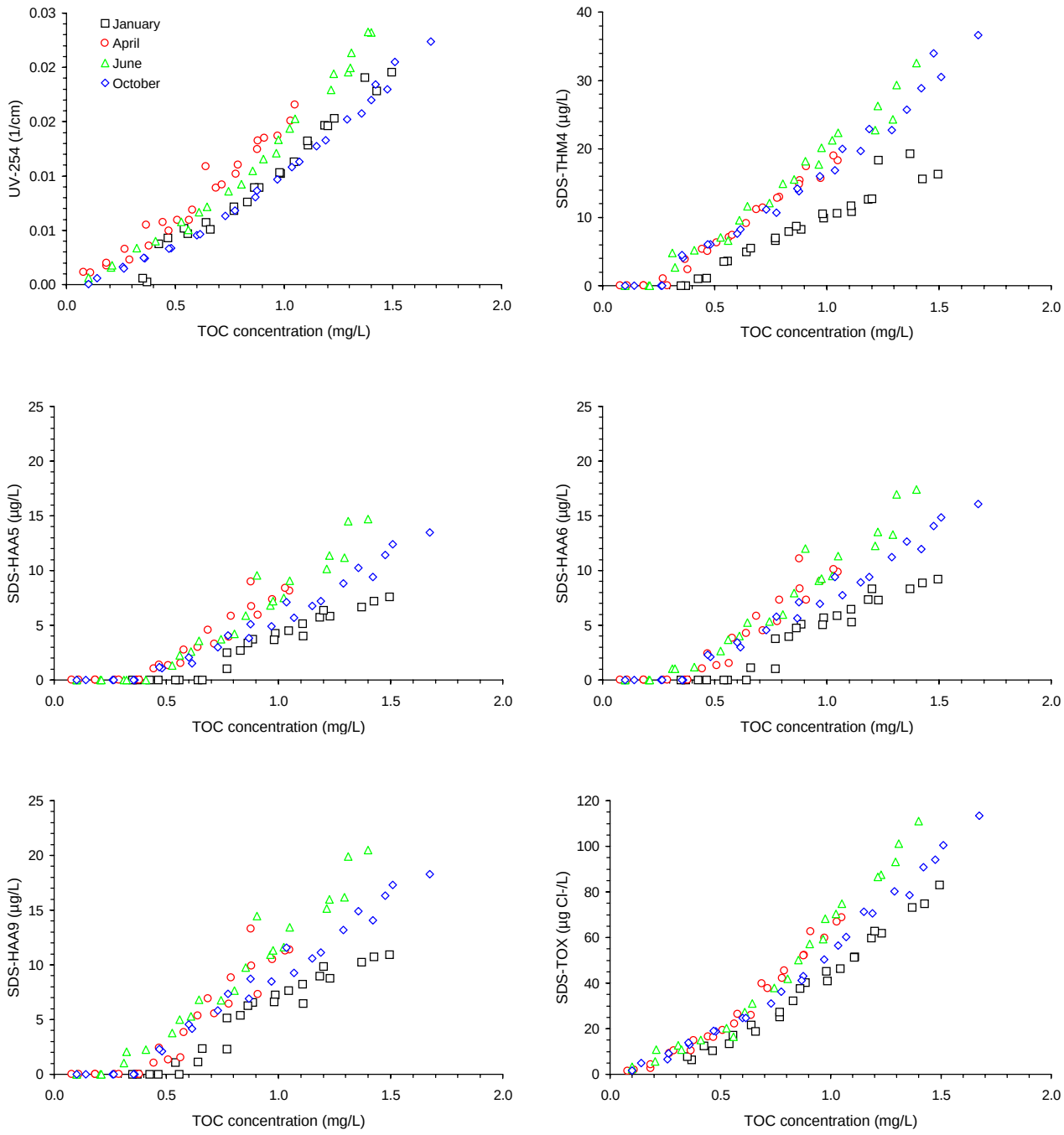


Figure 219 Correlation based on GAC effluent TOC concentration for both 10 and 20 minute EBCT contactors and all sessions

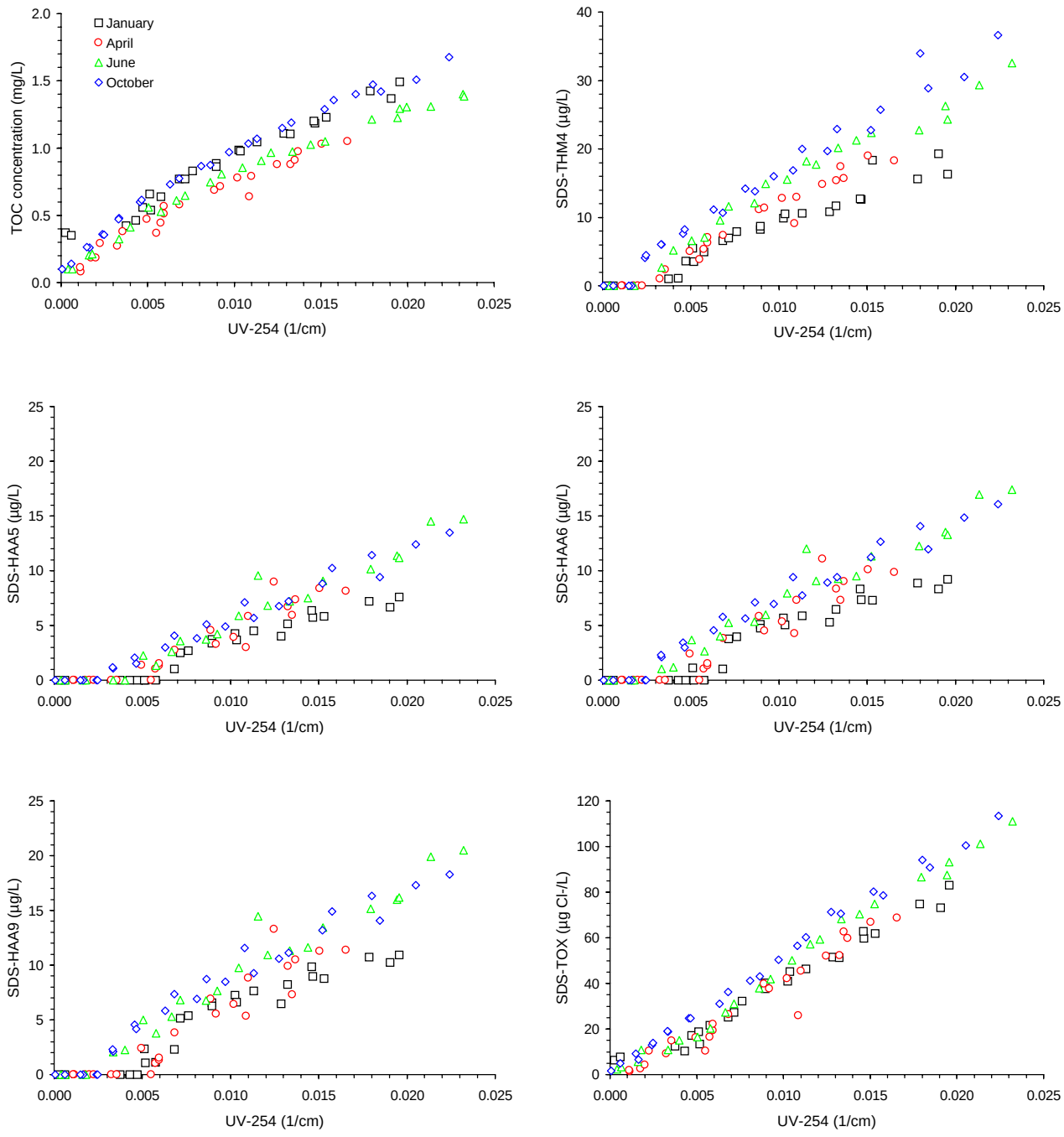


Figure 220 Correlation based on GAC effluent UV-254 for both 10 and 20 minute EBCT contactors and all sessions

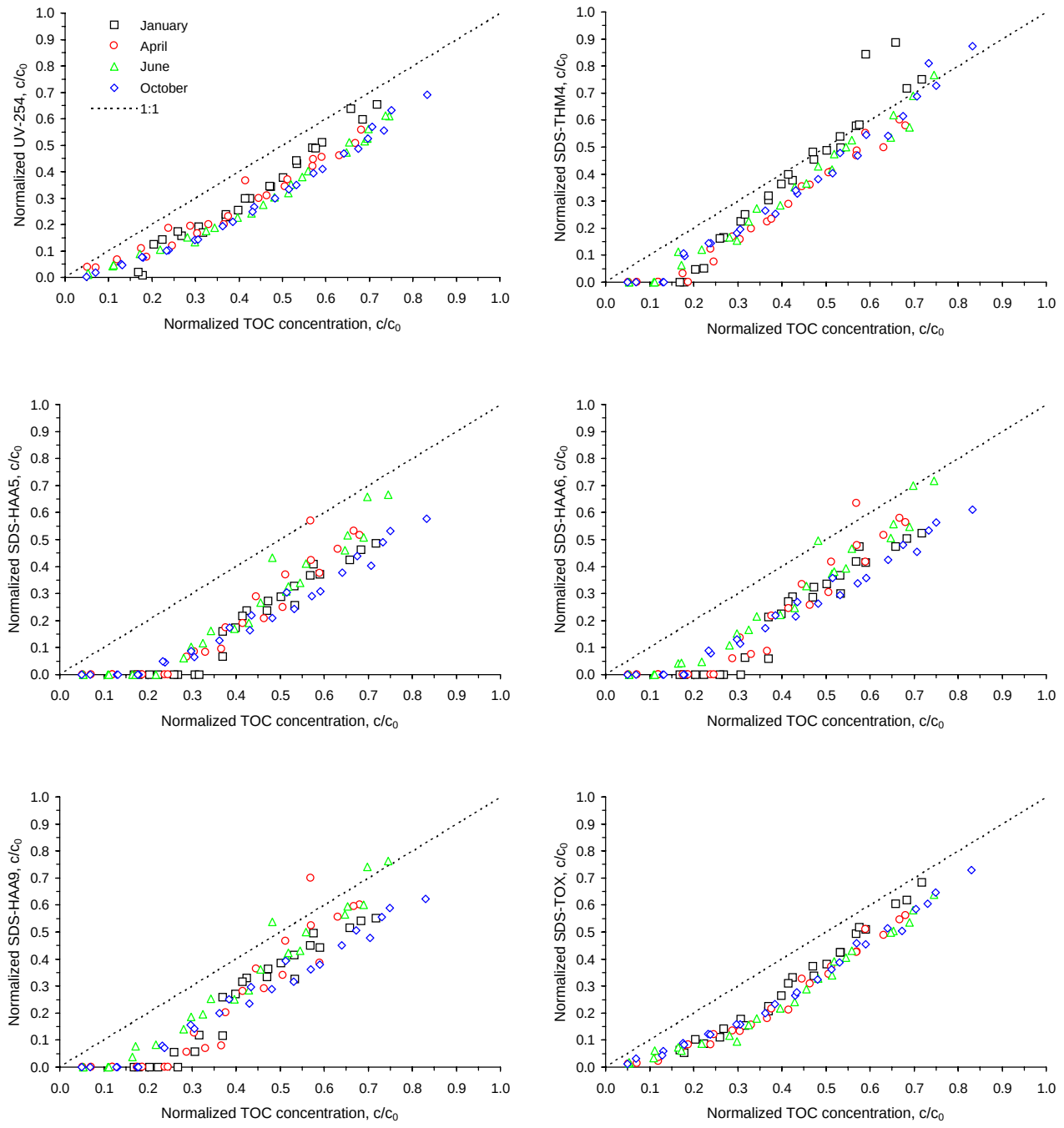


Figure 221 Correlation based on normalized GAC effluent TOC concentration for both 10 and 20 minute EBCT contactors and all sessions

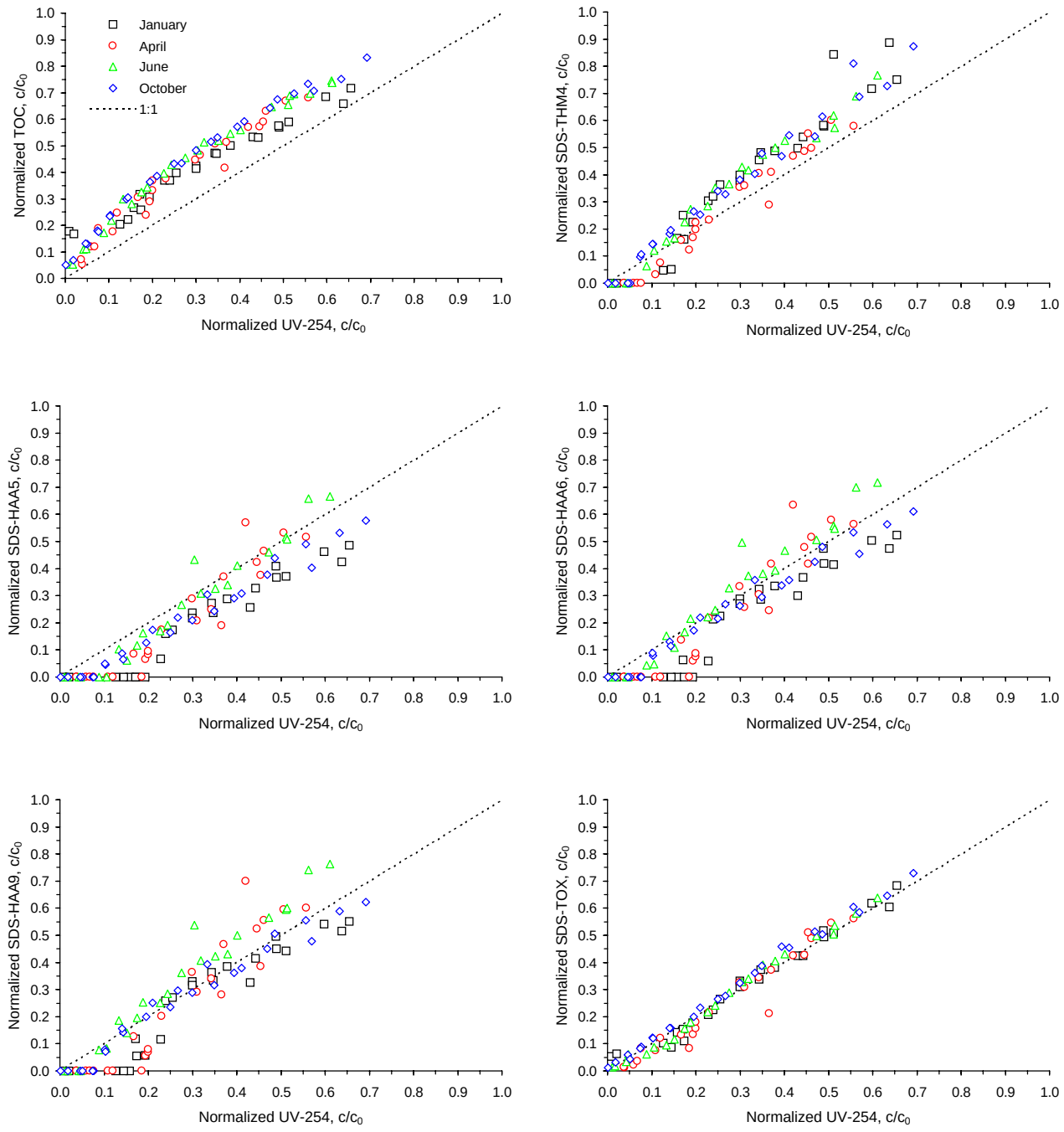


Figure 222 Correlation based on normalized GAC effluent UV-254 for both 10 and 20 minute EBCT contactors and all sessions

13 *TOC Breakthrough Performance Evaluation*

13 TOC Breakthrough Performance Evaluation

Based on a correlation that relates influent TOC concentration to bed volumes to 50 percent TOC breakthrough, BV_{50} (Summers et al. 1994; Hooper et al. 1996), the GAC performance of the N.L. Mitchell Water Treatment Plant water source pretreatment can be evaluated. The correlation is given by the following equation:

$$BV_{50} = \frac{18{,}000}{TOC_0} \qquad (9)$$

where TOC_0 is the mean influent TOC concentration, in mg/L. For all EBCTs and quarters evaluated, the BV_{50} obtained during each run was plotted in Figure 223. The performance of an average water is given by the dashed line, which represents Equation 9. Figure 223 shows that in general, GAC performance was better than that predicted by Equation 9.

For the four seasonal sessions, the BV_{50} value ranged from 8,698 to 17,557 bed volumes for the 10 minute EBCT contactors. Based on the influent TOC concentrations of each of the four sessions, the performance based on BV_{50} was on average 34 percent better than that predicted by Equation 9. The October run performed slightly poorer than expected, by 3 percent, while the January, April, and June runs performed 103, 15, and 21 percent better than expected, respectively.

For the 20 minute EBCT contactor runs the BV_{50} ranged from 11,350 to 22,099 bed volumes during the four seasonal sessions. Therefore, the run times were an average 72 percent higher than that expected, based on the correlation between influent TOC and BV_{50}. The performance for the 20 minute EBCT runs ranged between 27 and 156 percent better than expected.

By this analysis, GAC performance for the April, June, and October water samples was similar, after accounting for the differences in influent TOC concentration: the improvement in BV_{50} as influent TOC concentration decreased was roughly equal in magnitude to that predicted by the correlation, except for the January run. The January water sample yielded much higher than expected BV_{50} values, not attributable to influent TOC concentration alone. The influent pH during all runs was similar, ranging from 7.6 to 7.8.

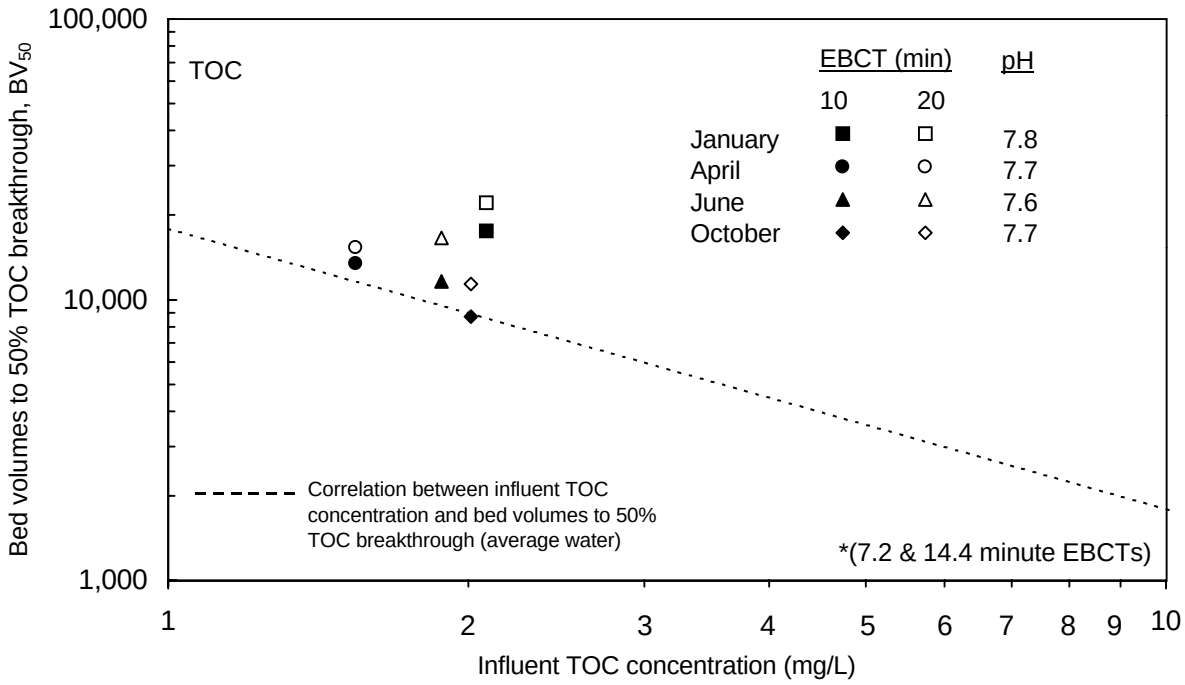


Figure 223 Comparison between GAC performance during treatment study testing and average water GAC performance

14 *Cost Information and Analysis*

14 Cost Information and Analysis

A comparative cost analysis was performed based on the data obtained during the treatment study using an EPA cost model (Clark and Adams, 1991). The cost analysis included the cost of on-site spent carbon reactivation. Costs were evaluated using steel pressure contactors and were determined in cents/1,000 gal for both capital and operations and maintenance (O&M) costs. Based on the maximum plant capacity of 24 MGD, 9 steel pressure contactors were required (20 ft diameter; 314 ft^2). Hydraulic loading at plant capacity is 5.9 gpm/ft^2. Although plant production varies throughout the year, the average yearly production, 13.4 MGD, was used for modeling purposes. Hydraulic loading under average plant flow conditions was 3.3 gpm/ft^2. The economic input data to the model are summarized in Table 56.

On-site GAC reactivation was assumed for all cost modeling. An average reactivation cost was determined based on reactivation by fluidized bed, infrared, and multihearth technologies. Total costs reflect an average of reactivation costs by the three technologies: individual costs for each reactivation technology are not reported.

The cost model sizes the contactors based on the plant capacity flow. The EBCT input into the model is the EBCT under plant capacity conditions. Therefore, under average flow conditions, the EBCT in each contactor will be higher, leading to longer intervals between GAC reactivation and lower O&M costs, and the costs reported here are conservative estimates.

The estimated capital costs are based on the economic input values, EBCT, type of contactor, and spent carbon reactivation demand. A cost of 90 cents/lb GAC was assumed. The O&M costs are determined based on the service life of each contactor, assuming operation of multiple contactors in parallel, staggered mode. Based on effluent blending and extrapolation procedures, the placeholders for Stage 2 DBP MCLs were not exceeded during this study. Therefore, the maximum run time (including extrapolation) was utilized to estimate costs. Table 57 summarizes the estimated run times used as input to the cost model.

Table 58 summarizes the GAC treatment cost analysis results. Capital, O&M, and total costs, given in cents/1,000 gal water treated, are included for all runs. Due to the very long run times estimated, seasonal variability in water quality had little impact on total costs as is seen by the variability in total costs for the January, April, and June sessions. Total costs for 10 minute EBCT contactors ranged from 31 to 32 cents/1,000 gal. The shorter EBCTs used during the October session yielded total costs for treatment 18 percent lower than the average of the three 10 minute EBCT runs. This decrease can be attributed to the lower capital costs due to construction of a smaller contactor.

In general, the costs for GAC treatment were lower for 10 minute EBCT contactors, mainly due to the lower capital costs associated with the smaller contactors. The decrease in O&M costs achieved with 20 minute EBCT contactors did not offset the higher capital costs. Total costs for 20 minute EBCT contactors were on average 57 percent greater than those for 10 minute EBCT contactors. The use of 10 minute EBCT steel pressure contactors to meet the placeholders for Stage 2 MCL requirements was found to be more cost-effective, based on the results of this model. However, due to the relatively long run times, the use of shorter EBCT contactors (5 to 7

minutes) will be most cost-effective, as shown by the lower costs estimated for the 7.2 minute EBCT run.

A bar graph comparing GAC treatment costs for both EBCTs evaluated, is shown in Figure 224. The error bars shown represent the standard deviation calculated from the costs of each session. This model assumed and included the costs for on-site GAC reactivation; off-site reactivation may be more cost-effective depending on the location and charges associated with a regional reactivation facility.

Parameter	Value
Capital recovery interest rate (%)	10
Capital recovery period (years)	20
Overhead & profit factor (% of construction costs)	5
Special sitework factor (% of construction costs)	5
Construction contingencies (% of construction costs)	10
Engineering fee factor (% of construction costs)	10
ENR construction cost index (CCI base year 1913) and date	6,006 (April 1999)
Producers Price Index (PPI base year 1967=100) and date	371 (April 1999)
Labor rate + fringe ($/manhour)	15
Labor overhead factor (% of labor)	10
Electric rate ($/kWh)	0.086
Fuel oil rate ($/gallon)	0.89
Natural gas rate ($/cu.ft.)	0.0055
Process water rate ($/1,000 gal)	0.35
Modifications to existing plant (% of construction cost)	5

Table 56 Economic input data to cost model

EBCT (min)	Session	Run time (days) for contactor configuration: Single[#]	Multiple (10 or more)
10	January	*	664†
10	April	*	398†
10	June	188	480†
7.2	October	155	455†
	Mean	171	499
	St. dev.	23	115
20	January	*	936†
20	April	*	846†
20	June	*	914†
14.4	October	253	655†
	Mean	253	838
	St. dev.	NA	128

*Effluent did not exceed run time criteria

[#]Single contactor run times are based on exceeding the placeholder for Stage 2 THM4 MCL

†Maximum run time estimated based on extrapolation of blended effluent

Table 57 Summary of GAC run times used to estimate costs for GAC treatment

	Cost (cents/1000 gal)					
	10 minute EBCT			20 minute EBCT		
Session	Capital	O&M	Total	Capital	O&M	Total
January	25	6	31	43	7	50
April	25	7	32	43	7	50
June	25	7	32	43	7	50
October*	20	6	26	33	7	40
Mean	24	6	30	41	7	47
St. dev.	3	0	3	5	0	5

*October EBCTs were 7.2 and 14.4 minutes

Table 58 Summary of GAC adsorption costs

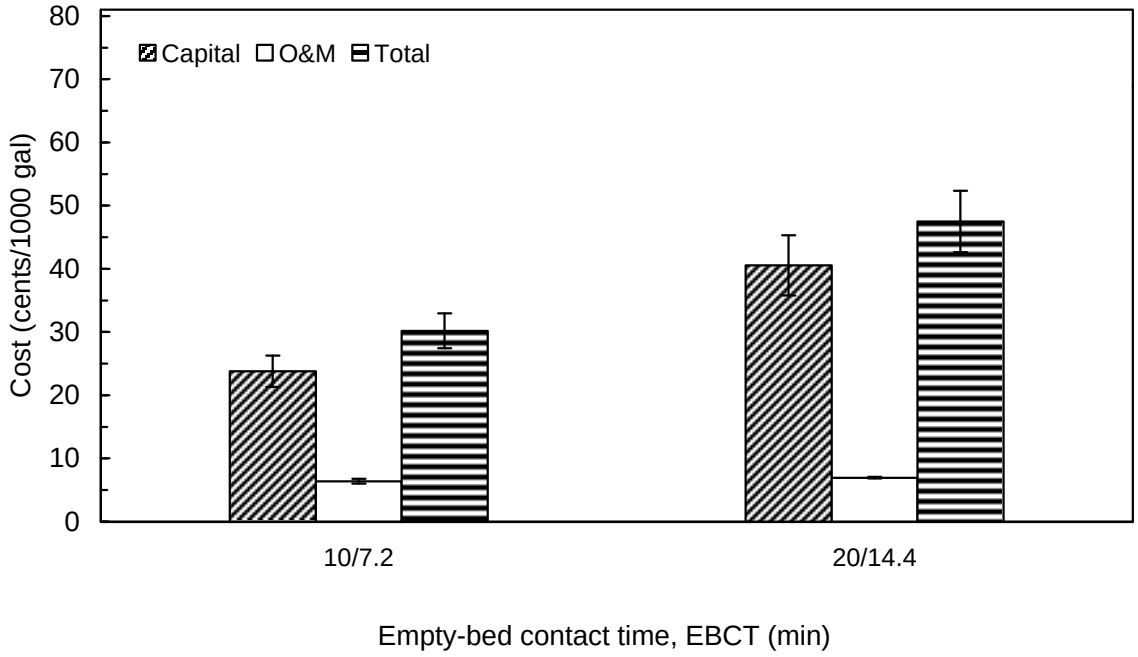


Figure 224 Average costs for GAC treatment with on-site reactivation

15 *Summary of Significant Results*

15 Summary of Significant Results

GAC reactivation frequency is typically based on compliance with Stage 1 or the placeholders for Stage 2 DBP MCLs. During this study, only three of the eight contactors operated exceeded the placeholder for Stage 2 THM4 MCL (32 µg/L using a 20 percent safety factor). For these runs, the MCL was exceeded after 155 to 253 full-scale equivalent days of operation. The placeholder for Stage 2 HAA5 MCL (24 µg/L using a 20 percent safety factor) was not exceeded. In practice, multiple contactors are operated in staggered fashion and their effluents are blended prior to chlorination. Therefore, run times to a given effluent criterion are extended as compared to a single contactor, because the poorer quality water from "older" contactors is blended with water from "newer" contactors. Based on this configuration, the placeholders for Stage 2 DBP MCL were not exceeded during any run, even after an extrapolation procedure was applied. The maximum extrapolated run time ranged from 13 to 22 months for the 10 minute EBCT contactors, and 22 to 31 months for the 20 minute EBCT contactor.

The total costs for GAC treatment was estimated using an EPA model, which included capital and O&M costs, based on the maximum extrapolated run time of multiple contactors operated in staggered fashion. For 10 minute EBCT contactors operated in parallel staggered mode, the estimate for total costs for GAC treatment averaged 30 cents/1,000 gal for steel pressure contactors. For 20 minute EBCT contactors operated in parallel staggered mode, total costs averaged 47 cents/1,000 gal steel pressure contactors. The costs for 20 minute EBCT contactors were higher due to the higher capital costs associated with the larger contactors.

GAC influent TOC concentration varied from 1.5 to 2.1 mg/L during the four sessions evaluated, and bromide concentration varied from below minimum reporting level to 28 µg/L. GAC treatment does not remove bromide, while TOC is adsorbed, resulting in higher GAC effluent bromide to TOC ratios as compared to the GAC influent. Due to this increase, GAC effluent formed DBPs may undergo shifts in speciation to higher concentrations of the more brominated DBP species. In some cases, such as for bromodichloromethane, effluent formed concentrations were measured higher than that formed in the influent. However, the effluent formed concentrations were very low, less than 6 µg/L. It is important to track the breakthrough behavior of specific DBP species, because some may be of potential health concern and a MCL could be set for a specific DBP species, although during this study the formed levels of individual brominated DBP species were very low, not exceeding 12 µg/L in the GAC effluent of any run.

For the 10 minute EBCT contactors, mean GAC performance based on BV_{50} values was better than that predicted for an average water. BV_{50} values ranged from 3 percent lower than predicted to 103 percent higher than predicted. At a 20 minute EBCT, BV_{50} values averaged 72 percent higher than predicted.

By plotting effluent concentrations divided by their respective influent concentrations, a normalized breakthrough evaluation can be performed. This evaluation yields insight into the relative breakthrough patterns of TOC, UV_{254}, and SDS-DBPs, indicating whether DBP surrogates can serve as direct or conservative indicators of SDS-DBP breakthrough. The evaluation performed during this study showed that SDS-THM4 breakthrough sometimes

exceeded TOC breakthrough, but overall TOC breakthrough served as a conservative indicator of SDS-DBP. UV_{254} served as an excellent direct indicator of SDS-TOX breakthrough.

16 *QA/QC Summary*

16 QA/QC Summary

All analyses performed during the treatment study followed the methods and QA/QC procedures required by the *DBP/ICR Analytical Methods Manual*. A summary of the data analyzed during this treatment study and all the required QA/QC information is summarized in electronic form in portable document format as an attachment to this report. The EPA has requested that the results of laboratory duplicate analyses, laboratory fortified matrix spike analyses, and any performance evaluation (PE) analyses be reported in the *Treatment Study Summary Report Spreadsheet*, an electronic Excel workbook supplied by EPA. The required data has been input into this file, and an electronic version of it is included as an attachment to this report.

As required by the ICR, three field duplicates were collected from each RSSCT. The results of the duplicate analyses are summarized in Table 59.

16.1 Calibration Procedures

Calibration procedures for bromide, haloacetic acids, total organic carbon, total organic halide, and trihalomethanes analyzed during this study are summarized in the following sections.

16.1.1 Bromide (EPA Method 300.0 A)

Five calibration standards and a blank are prepared by adding accurately measured volumes of ICR stock standard to volumetric flask and diluting to volume with reagent water. The calibration standards range from 0.02 to 0.50 mg/L. Using a 200 µL injection volume, the peak area responses against the concentration are tabulated and a linear curve is established. The calibration correlation coefficient must be equal to or greater than 0.995. After establishing the calibration the fourth calibration standard is analyzed. The recovery must be within 90-110 percent of the true value. Next a second source standard at the MID level is analyzed and the recovery must be within 90-110 percent of the true value prior to proceeding with ICR protocol.

16.1.2 Haloacetic Acids (EPA Method 552.2)

An initial calibration curve is extracted and analyzed for each set of samples to be analyzed for haloacetic acids. The concentrations of each of the levels of aqueous calibration standards are given in Table 60.

Level 1 represents concentrations near the MDL for each analyte. The concentrations of the remaining levels define the working range of the detector. Levels 5 and 6 are specified by the *DBP/ICR Analytical Methods Manual* to be used as continuing calibration checks.

Each analysis run is started with a methyl tert-butyl ether (MtBE) solvent blank. This is a check on the extraction solvent as well as on the instrument system. If this run is acceptable, the extracts of the seven levels of the calibration curve are analyzed (2-µL injection volume). The Chemstation Chromatography Software System is used to generate a calibration curve by

plotting the areas against the concentrations of the seven calibration extracts. The curve is defined as first order; correlation coefficients must be greater than 0.9900.

16.1.3 Total Organic Carbon (Standard Method 5310 C)

The instrument calibration accuracy is verified daily by analysis of a 4.00 mg/L as carbon standard solution of potassium hydrogen phthalate. Recovery of the standard must be between 99 and 101 percent. When outside of this range, the slope of a linear regression between standard amount and area count and the origin is adjusted and the standard is reanalyzed to ensure a recovery between 99 and 101 percent. Calibration check standards and samples are then analyzed as described in the *DBP/ICR Analytical Methods Manual*.

16.1.4 Total Organic Halide (Standard Method 5320 B)

An instrument calibration verification is performed yearly. The 2,4,6-trichlorophenol standard is injected directly onto the nitrate-washed method blank. Concentrations of 0.5, 1, 2.5, 5, 10, and 20 µg as Cl^- are included in the curve. A first order curve with correlation coefficient greater than 0.99 must be obtained, and is only used to verify instrument performance.

At the beginning of each daily run, and after cell cleaning during the day, three NaCl injections of 5 µg as Cl^- are made directly into the titration cell. This serves as a cell performance check. Recovery of the NaCl standard must be within 3 percent of the historic mean. Typically, recovery is 95 to 105 percent.

16.1.5 Trihalomethanes (EPA Method 551.1)

An initial calibration curve is extracted and analyzed for each set of samples to be analyzed for trihalomethanes. The concentrations of each of the levels of aqueous calibration standards are given in Table 61.

Level 1 represents concentrations near the MDL for each analyte. The concentrations of the remaining levels define the working range of the detector. Levels 4 and 5 are specified by the DBP/ICR Analytical Methods Manual to be used as continuing calibration checks.

Each analysis run is started with a MtBE solvent blank. This is a check on the extraction solvent as well as on the instrument system. If this run is acceptable, the extracts of the six levels of the calibration curve are analyzed (2.0-µL injection volume). The Chemstation Chromatography Software System is used to generate a calibration curve by plotting the areas against the concentrations of the six calibration extracts. The curve is defined as first order; correlation coefficients must be greater than 0.99.

Analyte	Count	Mean RPD	Percentiles 25th	50th	75th
TOC	24	1.6	0.7	1.6	2.4
UV-254	24	2.1	0.6	1.1	2.9
pH	24	0.5	0.1	0.4	0.6
Temperature	24	0.3	0.0	0.4	0.5
SDS-TOX	24	5.2	1.4	5.3	6.9
SDS-THM4	24	4.2	1.4	3.6	6.5
SDS-HAA5	18	9.7	3.3	8.0	11.8
SDS-HAA6	19	7.2	2.2	6.4	10.1
SDS-HAA9	20	7.4	2.3	7.6	10.7
SDS-chlorine residual	24	5.4	1.5	3.6	7.0
THM Species					
SDS-$CHCl_3$	23	12.0	1.2	2.7	5.4
SDS-BDCM	23	7.5	1.3	5.3	10.0
SDS-DBCM	24	4.4	0.8	4.1	7.0
SDS-$CHBr_3$	0	NA	NA	NA	NA
HAA Species					
SDS-MCAA	0	NA	NA	NA	NA
SDS-DCAA	18	5.7	2.7	5.5	7.6
SDS-TCAA	17	21.4	3.5	8.7	15.7
SDS-MBAA	0	NA	NA	NA	NA
SDS-DBAA	0	NA	NA	NA	NA
SDS-BCAA	19	6.0	1.8	3.8	10.0
SDS-TBAA	0	NA	NA	NA	NA
SDS-CDBAA	0	NA	NA	NA	NA
SDS-DCBAA	20	10.0	6.2	11.1	13.1

RPD: relative percent differnce
NA: not applicable

Table 59 Summary of field duplicate precision for both EBCTs and all sessions

Level	Concentration (µg/L)
1	0.5
2	1.0
3	2.0
4	4.0
5	20.
6	40.
7	80.

Table 60 Haloacetic acid aqueous calibration standard concentrations (EPA Method 552.2)

Level	Concentration (µg/L)
1	0.5
2	1.0
3	5.0
4	20.
5	40.
6	80.

Table 61 Trihalomethane aqueous calibration standard concentrations (EPA Method 551.1)

17 *References*

17 References

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Appendix: Summary of Treatment Study Data

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #1

Client: City of Greensboro **Study#:** 103

												SDS Chlorination Conditions*								
No.	Sample ID	Client Sample ID	Start Date/Time	End Date/Time	Stop T (days)	Run L (days)	F-S L (days)	TOC (mg/L)	UV254 (1/cm)	Temp (ºC)	pH	Dose (mg/L)	Res. (mg/L)	Dem (mg/L)	Temp (ºC)	pH	Time hrs	Alk. (mg/L)	Hard-Tot (mg/L as CaCO3)	Hard-CA	Turb. (ntu)
Effluent C	**EBCT:** 10 min	**Carbon Type:** Bituminous	**Influent pH:** 7.7	**Scaling Factor:** 12.6																	
1	9804-385	103.10.Eff-1	4/22/98 12:57	4/22/98 19:56		0.20	2	0.08	0.001	21.9	7.6	1.20	1.05	0.15	17.4	7.72	6.1				
2	9804-419	103.10.Eff-7	4/25/98 11:00	4/25/98 17:44		3.11	39	0.19	0.002	22.5	7.5	1.29	0.99	0.30	17.6	7.65	23.8				
3	9804-428	103.10.Eff-9	4/26/98 0:53	4/26/98 7:55		3.69	46	0.27	0.003	21.7	7.6	1.28	0.78	0.50	17.6	7.69	23.8				
4	9804-431	103.10.Eff-10	4/26/98 7:55	4/26/98 14:52		3.99	50	0.36	0.005	22.1	7.7	1.36	0.87	0.49	17.6	7.69	23.9				
4d	9804-432	103.10.Eff-10d	4/26/98 7:55	4/26/98 14:52		3.99	50	0.38	0.006	22.1	7.6	1.37	0.90	0.47	17.6	7.70	23.9				
5	9804-446	103.10.Eff-12	4/26/98 21:45	4/27/98 4:52		4.56	57	0.45	0.006	21.5	6.8	1.51	1.10	0.41	17.7	7.72	24.0				
6	9804-452	103.10.Eff-13	4/27/98 4:52	4/27/98 11:59		4.86	61	0.51	0.006	21.4	7.3	1.56	1.15	0.41	17.7	7.69	24.0				
7	9804-456	103.10.Eff-14	4/27/98 11:59	4/27/98 15:37		5.09	64	0.56	0.006	22.3	7.7	1.61	1.18	0.43	17.7	7.68	24.0				
8	9804-482	103.10.Eff-18	4/28/98 19:51	4/29/98 2:44		6.48	81	0.69	0.009	22.2	7.6	1.70	1.19	0.51	17.7	7.68	24.1				
8d	9804-483	103.10.Eff-18d	4/28/98 19:51	4/29/98 2:44		6.48	81	0.69	0.009	22.2	7.6	1.70	1.11	0.59	17.7	7.68	24.1				
9	9804-508	103.10.Eff-20	4/29/98 23:55	4/30/98 6:57		7.65	96	0.79	0.011	21.7	7.6	1.71	1.14	0.57	16.8	7.68	23.9				
10	9805-9	103.10.Eff-21	4/30/98 21:12	5/1/98 4:14		8.54	107	0.88	0.013	22.3	7.9	1.77	1.16	0.61	16.8	7.69	23.9				
11	9805-54	103.10.Eff-24	5/2/98 8:25	5/2/98 15:27		10.01	126	0.95	0.014	22.7	7.8	1.83	1.18	0.65	16.8	7.70	23.9				
11d	9805-55	103.10.Eff-24d	5/2/98 8:25	5/2/98 15:27		10.01	126	0.99	0.014	22.7	7.8	1.86	1.19	0.67	16.8	7.69	24.0				
12	9805-101	103.10.Eff-27	5/4/98 23:54	5/5/98 6:51		12.65	159	1.05	0.017	21.9	7.7	1.90	1.20	0.70	17.7	7.67	24.1				
13	9805-120	103.10.Eff-28	5/6/98 7:19	5/6/98 13:20		13.94	175	1.12		22.4	7.6										
Effluent C	**EBCT:** 20 min	**Carbon Type:** Bituminous	**Influent pH:** 7.7	**Scaling Factor:** 12.6																	
1	9804-386	103.20.Eff-1	4/22/98 12:57	4/22/98 19:25		0.18	2	0.11	0.001	21.3	7.9	1.20	1.05	0.15	17.4	7.70	6.1				
2	9805-11	103.20.Eff-9	5/1/98 1:46	5/1/98 8:19		8.72	110	0.19	0.002	21.6	7.5	1.26	1.01	0.25	16.8	7.69	24.0				
3	9805-57	103.20.Eff-13	5/2/98 10:28	5/2/98 16:59		10.08	127	0.29	0.002	22.2	7.5	1.33	1.06	0.27	16.8	7.69	24.1				
4	9805-67	103.20.Eff-14	5/2/98 23:31	5/3/98 6:05		10.63	134	0.39	0.003	21.7	7.6	1.41	1.08	0.33	16.8	7.68	24.1				
4d	9805-68	103.20.Eff-14d	5/2/98 23:31	5/3/98 6:05		10.63	134	0.38	0.004	21.7	7.6	1.40	1.08	0.32	16.8	7.69	24.1				
5	9805-82	103.20.Eff-17	5/4/98 2:01	5/4/98 8:50		11.74	148	0.47	0.005	20.1	7.7	1.47	1.13	0.34	17.7	7.68	24.1				
6	9805-106	103.20.Eff-18	5/5/98 4:34	5/5/98 11:10		12.84	161	0.58	0.007	21.6	7.3	1.54	1.00	0.54	17.7	7.65	24.1				
7	9805-118	103.20.Eff-20	5/6/98 6:23	5/6/98 13:04		13.92	175	0.64	0.011	21.9	7.5	1.50	1.07	0.43	17.7	7.67	24.5				
7d	9805-119	103.20.Eff-20d	5/6/98 6:23	5/6/98 13:04		13.92	175	0.65	0.011	21.9	7.2	1.51	1.06	0.45	17.7	7.66	24.5				
8	9805-135	103.20.Eff-22	5/7/98 22:05	5/8/98 4:40		15.57	196	0.71	0.009	22.2	7.4	1.56	1.16	0.40	18.2	7.66	24.1				
9	9805-163	103.20.Eff-23	5/9/98 13:54	5/9/98 20:31		17.23	217	0.78	0.010	23.0	7.6	1.60	1.12	0.48	18.2	7.67	24.2				
10	9805-219	103.20.Eff-26	5/12/98 8:03	5/12/98 14:43		19.98	251	0.86	0.013	22.7	7.5	1.63	0.93	0.70	18.0	7.63	24.1				
10d	9805-220	103.20.Eff-26d	5/12/98 8:03	5/12/98 14:43		19.98	251	0.89	0.012	22.6	7.6	1.64	1.01	0.63	18.0	7.64	24.1				
11	9805-376	103.20.Eff-31	5/17/98 8:22	5/17/98 15:12	0.07	24.93	313	0.91	0.014	22.9	7.6	1.66	0.98	0.68	18.0	7.67	24.0				
12	9805-417	103.20.Eff-33	5/19/98 9:34	5/19/98 16:15	0.14	26.91	338	1.03	0.015	23.6	7.5	1.73	1.03	0.70	18.0	7.66	24.0				

ND: Non-detect. Blank Results: Either analysis was not performed or result did not meet ICR QC requirements.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #1

Client: City of Greensboro **Study#:** 103

#	SamplesID	ClientSampleID	F-S L (days)	TOC (mg/L)	TOX (µg Cl-/L)	Trihalomethanes (µg/L)					Haloacetic Acids (µg/L)										NH3-N	Brom
						CF	BDCM	DBCM	BF	TTHM	MCAA	DCAA	TCAA	MBAA	DBAA	BCAA	BDCAA	DBCAA	TBAA	HAA6	HAA9	(mg/L)	(µg/L)
Effluent C		**EBCT:** 10 min	**Carbon Type:** Bituminous			**Influent pH:** 7.7			**Scaling Factor:** 12.6														
1	9804-385	103.10.Eff-1	2	0.08	1	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
2	9804-419	103.10.Eff-7	39	0.19	3	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3	9804-428	103.10.Eff-9	46	0.27	9	ND	ND	1.0	ND	**1.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
4	9804-431	103.10.Eff-10	50	0.36	10	1.3	1.0	1.4	ND	**3.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
4d	9804-432	103.10.Eff-10d	50	0.38	11	1.4	1.0	1.4	ND	**3.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
5	9804-446	103.10.Eff-12	57	0.45	16	2.1	1.2	2.0	ND	**5.3**	ND	1	ND	ND	ND	ND	ND	ND	ND	**1**	**1**		
6	9804-452	103.10.Eff-13	61	0.51	19	2.6	1.3	2.3	ND	**6.2**	ND	1	ND	ND	ND	ND	ND	ND	ND	**1**	**1**		
7	9804-456	103.10.Eff-14	64	0.56	22	3.0	1.4	2.6	ND	**7.1**	ND	2	ND	ND	ND	ND	ND	ND	ND	**2**	**2**		
8	9804-482	103.10.Eff-18	81	0.69	38	5.5	1.6	3.7	ND	**10.8**	ND	3	1	ND	ND	1	1	ND	ND	**6**	**7**		
8d	9804-483	103.10.Eff-18d	81	0.69	42	5.8	1.7	4.0	ND	**11.5**	ND	3	2	ND	ND	1	1	ND	ND	**6**	**7**		
9	9804-508	103.10.Eff-20	96	0.79	45	7.0	1.7	4.2	ND	**12.9**	ND	3	3	ND	ND	1	2	ND	ND	**7**	**9**		
10	9805-9	103.10.Eff-21	107	0.88	52	8.5	1.7	5.2	ND	**15.4**	ND	4	3	ND	ND	2	2	ND	ND	**8**	**10**		
11	9805-54	103.10.Eff-24	126	0.95	62	9.1	1.6	4.9	ND	**15.5**	ND	4	3	ND	ND	2	1	ND	ND	**9**	**10**		
11d	9805-55	103.10.Eff-24d	126	0.99	58	9.2	1.6	5.1	ND	**15.9**	ND	4	3	ND	ND	2	2	ND	ND	**9**	**11**		
12	9805-101	103.10.Eff-27	159	1.05	69	11.2	1.6	5.5	ND	**18.3**	ND	5	4	ND	ND	2	2	ND	ND	**10**	**11**		
13	9805-120	103.10.Eff-28	175	1.12																			
Effluent C		**EBCT:** 20 min	**Carbon Type:** Bituminous			**Influent pH:** 7.7			**Scaling Factor:** 12.6														
1	9804-386	103.20.Eff-1	2	0.11	2	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
2	9805-11	103.20.Eff-9	110	0.19	4	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3	9805-57	103.20.Eff-13	127	0.29	10	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
4	9805-67	103.20.Eff-14	134	0.39	15	1.1	ND	1.3	ND	**2.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
4d	9805-68	103.20.Eff-14d	134	0.38	14	1.0	ND	1.3	ND	**2.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
5	9805-82	103.20.Eff-17	148	0.47	16	1.7	1.4	2.0	ND	**5.0**	ND	1	ND	ND	ND	1	ND	ND	ND	**2**	**2**		
6	9805-106	103.20.Eff-18	161	0.58	26	3.0	1.6	2.8	ND	**7.4**	ND	2	1	ND	ND	1	ND	ND	ND	**4**	**4**		
7	9805-118	103.20.Eff-20	175	0.64	27	3.6	2.0	3.5	ND	**9.2**	ND	2	1	ND	ND	1	1	ND	ND	**4**	**5**		
7d	9805-119	103.20.Eff-20d	175	0.65	25	3.6	2.1	3.5	ND	**9.1**	ND	2	1	ND	ND	1	1	ND	ND	**4**	**5**		
8	9805-135	103.20.Eff-22	196	0.71	38	4.9	2.2	4.3	ND	**11.3**	ND	2	1	ND	ND	1	1	ND	ND	**5**	**6**		
9	9805-163	103.20.Eff-23	217	0.78	42	6.0	2.2	4.7	ND	**12.8**	ND	2	2	ND	ND	1	1	ND	ND	**5**	**6**		
10	9805-219	103.20.Eff-26	251	0.86	53	7.5	2.0	5.0	ND	**14.5**	ND	4	5	ND	ND	2	2	ND	ND	**11**	**14**		
10d	9805-220	103.20.Eff-26d	251	0.89	52	7.7	2.2	5.2	ND	**15.1**	ND	4	4	ND	ND	2	2	ND	ND	**11**	**13**		
11	9805-376	103.20.Eff-31	313	0.91	63	9.7	2.0	5.7	ND	**17.4**	ND	4	2	ND	ND	1	ND	ND	ND	**7**	**7**		
12	9805-417	103.20.Eff-33	338	1.03	67	11.0	1.9	6.1	ND	**19.0**	ND	5	3	ND	ND	2	1	ND	ND	**10**	**11**		

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #1

Client: City of Greensboro **Study#:** 103

No.	Sample ID	Client Sample ID	Start Date/Time	End Date/Time	Stop T (days)	Run L (days)	F-S L (days)	TOC (mg/L)	UV254 (1/cm)	Temp (ºC)	pH	SDS Chlorination Conditions* Dose (mg/L)	Res. (mg/L)	Dem (mg/L)	Temp (ºC)	pH	Time hrs	Alk. (mg/L)	Hard-Tot (mg/L as CaCO3)	Hard-CA	Turb. (ntu)
13	9805-446	103.20.Eff-34	5/21/98 15:36	5/21/98 19:01	0.15	29.08	366	1.06		23.8	7.6										
Influent A		**EBCT:**	**Carbon Type:**		**Influent pH:** 7.7		**Scaling Factor:** 12.6														
1	9804-372	103.INF.A-1	4/22/98 13:00	4/22/98 13:00		0.05	1											20	26	17	
2	9805-93	103.INF.A-2	5/5/98 8:10	5/5/98 8:10		12.85	162											20	35	19	
Influent B		**EBCT:**	**Carbon Type:**		**Influent pH:** 7.7		**Scaling Factor:** 12.6														
1	9804-373	103.INF.B-1	4/22/98 13:05	4/22/98 13:05		0.06	1	1.46	0.030	19.0	7.7										0.05
2	9804-453	103.INF.B-2	4/27/98 13:25	4/27/98 13:25		5.07	64	1.58	0.030	14.7	7.7	2.12	0.76	1.36	17.6	7.68	24.0				0.10
3	9804-520	103.INF.B-3	4/30/98 13:43	4/30/98 13:43		8.08	102	1.44		15.4	7.7										
4	9805-109	103.INF.B-4	5/6/98 8:40	5/6/98 8:40		13.87	174	1.48	0.030	15.7	7.7	2.30	1.16	1.14	17.7	7.67	24.6		27	16	0.10
5	9805-191	103.INF.B-5	5/11/98 10:10	5/11/98 10:10		18.93	238	1.66		17.6	7.7										
6	9805-422	103.INF.B-7	5/20/98 9:45	5/20/98 9:45		27.92	351	1.63	0.029	20.6	7.7	2.12	0.98	1.14	18.0	7.68	24.1				0.10
PreStudy		**EBCT:**	**Carbon Type:**		**Influent pH:**		**Scaling Factor:**														
1	9804-213	Settled	4/13/98 10:45	4/13/98 10:45				1.67													
2	9804-214	Raw	4/13/98 10:50	4/13/98 10:50				2.81													
3	9804-235	Filtered	4/14/98 9:10	4/14/98 9:10				1.58													
4	9804-236	Settled	4/14/98 9:15	4/14/98 9:15				1.88													
5	9804-320	Settled water on	4/19/98 10:00	4/19/98 10:00				1.58													
6	9804-321	Filtered - 1.0 um	4/19/98 15:00	4/19/98 15:00				1.42													

***Target SDS Chlorination Conditions**

Free Cl2 Residual: 1.00 mg/L **pH:** 7.7 **Temperature:** 17.0 ºC **Holding time:** 24.0 hrs

Study Comments

Samples 9804-385 and 9804-386 were chlorinated and held for only 6 hours instead of the SDS chlorination holding time of 24 hours. There was not enough of either sample left to redo the chlorination.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #1

Client: City of Greensboro **Study#:** 103

#	SamplesID	ClientSampleID	F-S L (days)	TOC (mg/L)	TOX (µg Cl-/L)	Trihalomethanes (µg/L)					Haloacetic Acids (µg/L)											NH3-N (mg/L)	Brom (µg/L)
						CF	BDCM	DBCM	BF	TTHM	MCAA	DCAA	TCAA	MBAA	DBAA	BCAA	BDCAA	DBCAA	TBAA	HAA6	HAA9		
13	9805-446	103.20.Eff-34	366	1.06																			
Influent A		**EBCT:**	**Carbon Type:**			**Influent pH:** 7.7			**Scaling Factor:** 12.6														
1	9804-372	103.INF.A-1	1																			ND	ND
2	9805-93	103.INF.A-2	162																			ND	ND
Influent B		**EBCT:**	**Carbon Type:**			**Influent pH:** 7.7			**Scaling Factor:** 12.6														
1	9804-373	103.INF.B-1	1	1.46																			
2	9804-453	103.INF.B-2	64	1.58	123	23.1	1.0	6.5	ND	**30.6**	ND	9	7	ND	ND	2	1	ND	ND	**18**	**19**		
3	9804-520	103.INF.B-3	102	1.44																			
4	9805-109	103.INF.B-4	174	1.48	121	25.0	1.1	6.8	ND	**32.9**	ND	8	7	ND	ND	2	2	ND	ND	**16**	**18**	ND	ND
5	9805-191	103.INF.B-5	238	1.66																			
6	9805-422	103.INF.B-7	351	1.63	123	23.5	1.1	6.6	ND	**31.2**	ND	9	8	ND	ND	2	1	ND	ND	**19**	**20**		
PreStudy		**EBCT:**	**Carbon Type** 0			**Influent pH:**			**Scaling Factor:**														
1	9804-213	Settled		1.67																			
2	9804-214	Raw		2.81																			
3	9804-235	Filtered		1.58																			
4	9804-236	Settled		1.88																			
5	9804-320	Settled water on arrival		1.58																			
6	9804-321	Filtered - 1.0 um		1.42																			

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #2

Client: City of Greensboro **Study#:** 122

No.	Sample ID	Client Sample ID	Start Date/Time	End Date/Time	Stop T (days)	Run L (days)	F-S L (days)	TOC (mg/L)	UV254 (1/cm)	Temp (ºC)	pH	SDS Chlorination Conditions* Dose (mg/L)	Res. (mg/L)	Dem (mg/L)	Temp (ºC)	pH	Time hrs	Alk. (mg/L)	Hard-Tot (mg/L as CaCO3)	Hard-CA	Turb. (ntu)
Effluent C		**EBCT:** 10 min	**Carbon Type:** Bituminous		**Influent pH:** 7.6		**Scaling Factor:** 12.6														
1	9806-618	122.10.Eff-1	6/20/98 12:32	6/20/98 19:03		0.17	2	0.10	0.000	25.4	8.6	1.20	1.01	0.19	21.8	7.60	24.1				
2	9806-622	122.10.Eff-5	6/23/98 16:38	6/23/98 23:37		3.35	42	0.21	0.002	23.6	7.8	1.27	0.91	0.36	21.8	7.55	24.1				
3	9806-623	122.10.Eff-6	6/24/98 6:39	6/24/98 13:37		3.93	49	0.31		23.2	7.8	1.33	0.88	0.45	21.8	7.52	24.0				
4	9806-624	122.10.Eff-7	6/24/98 13:37	6/24/98 20:28		4.22	53	0.53	0.005	25.8	7.7	1.47	0.92	0.55	21.8	7.51	24.1				
4d	9806-648	122.10.Eff-7d	6/24/98 13:37	6/24/98 20:28		4.22	53	0.53	0.006	25.7	7.7	1.47	0.99	0.48	21.8	7.47	24.1				
5	9806-626	122.10.Eff-9	6/25/98 3:33	6/25/98 10:47		4.81	60	0.61	0.007	22.4	7.8	1.52	0.97	0.55	21.8	7.52	24.2				
6	9806-627	122.10.Eff-10	6/25/98 10:47	6/25/98 17:34		5.10	64	0.75	0.009	25.3	7.7	1.61	0.96	0.65	21.8	7.54	24.4				
7	9806-630	122.10.Eff-13	6/26/98 7:43	6/26/98 14:31		5.97	75	0.84	0.010	25.1	7.8	1.68	0.95	0.73	21.8	7.50	24.4				
7d	9806-651	122.10.Eff-13d	6/26/98 7:43	6/26/98 14:31		5.97	75	0.86	0.010	25.2	7.8	1.68	0.91	0.77	21.8	7.47	24.4				
8	9806-632	122.10.Eff-15	6/26/98 21:14	6/27/98 4:01		6.54	82	0.96	0.012	25.8	7.9	1.75	0.97	0.78	21.8	7.50	24.5				
9	9806-639	122.10.Eff-22	6/28/98 21:00	6/29/98 3:51		8.53	107	1.05	0.015	25.6	8.0	1.80	0.91	0.89	21.8	7.53	24.4				
10	9806-641	122.10.Eff-24	6/30/98 21:55	7/1/98 4:55		10.57	133	1.23	0.020	22.4	8.1	1.91	0.85	1.06	21.8	7.53	23.9				
10d	9806-656	122.10.Eff-24d	6/30/98 21:55	7/1/98 4:55		10.57	133	1.23	0.019	22.9	8.1	1.91	0.94	0.97	21.8	7.51	23.9				
11	9806-646	122.10.Eff-29	7/3/98 20:22	7/4/98 3:21	0.00	13.50	170	1.31	0.021	23.0	7.8	2.05	1.00	1.05	21.7	7.53	24.4				
12	9807-82	122.10.Eff-31	7/5/98 14:34	7/5/98 21:36	0.00	15.26	192	1.40	0.023	23.9	7.8	2.10	0.99	1.11	21.7	7.54	24.4				
13	9807-83	122.10.Eff-32	7/7/98 2:00	7/7/98 9:11	0.00	16.74	210	1.38	0.023	23.0	7.7										
Effluent C		**EBCT:** 20 min	**Carbon Type:** Bituminous		**Influent pH:** 7.6		**Scaling Factor:** 12.6														
1	9806-658	122.20.Eff-1	6/20/98 12:32	6/20/98 19:03		0.17	2	0.10	0.001	25.2	8.2	1.20	0.97	0.23	21.8	7.56	24.2				
2	9806-664	122.20.Eff-7	6/28/98 8:07	6/28/98 15:31		8.00	101	0.21	0.002	25.6	8.3	1.27	0.87	0.40	21.8	7.53	24.5				
3	9806-667	122.20.Eff-10	6/29/98 5:46	6/29/98 12:54		8.90	112	0.32	0.003	25.0	8.2	1.35	0.95	0.40	21.8	7.53	24.0				
3d	9806-688	122.20.Eff-10d	6/29/98 5:46	6/29/98 12:54		8.90	112	0.33	0.003	25.0	8.2	1.35	0.91	0.44	21.8	7.54	24.0				
4	9806-670	122.20.Eff-13	6/30/98 2:57	6/30/98 10:05		9.78	123	0.41	0.004	22.6	8.3	1.40	0.94	0.46	21.8	7.55	24.0				
5	9806-672	122.20.Eff-15	6/30/98 17:03	7/1/98 0:01		10.37	130	0.56	0.005	23.3	8.3	1.49	0.91	0.58	21.8	7.54	24.0				
6	9806-678	122.20.Eff-21	7/3/98 8:14	7/3/98 15:18		13.00	163	0.65	0.007	23.9	8.4	1.65	1.02	0.63	21.7	7.57	24.4				
7	9806-680	122.20.Eff-23	7/4/98 19:24	7/5/98 2:21		14.46	182	0.81	0.009	23.3	7.8	1.72	1.09	0.63	21.7	7.55	24.4				
7d	9806-691	122.20.Eff-23d	7/4/98 19:24	7/5/98 2:21		14.46	182	0.80	0.009	23.3	7.8	1.72	1.04	0.68	21.7	7.52	24.5				
8	9806-684	122.20.Eff-27	7/7/98 10:34	7/7/98 17:38		17.10	215	0.91	0.012	24.1	7.7	1.78	1.02	0.76	21.4	7.45	24.2				
9	9806-685	122.20.Eff-28	7/10/98 2:07	7/10/98 9:13	0.00	19.74	248	0.97	0.013	23.0	7.6	1.82	1.00	0.82	21.3	7.49	24.1				
10	9806-686	122.20.Eff-29	7/13/98 0:09	7/13/98 7:08	0.00	22.66	285	1.02	0.014	23.0	7.6	1.85	1.08	0.77	21.3	7.52	24.1				
11	9806-687	122.20.Eff-30	7/16/98 5:14	7/16/98 12:15	0.00	25.87	325	1.22	0.018	23.4	7.7	1.97	0.96	1.01	20.5	7.49	24.2				
11d	9806-692	122.20.Eff-30d	7/16/98 5:14	7/16/98 12:15	0.00	25.87	325	1.21	0.018	23.4	7.7	1.97	1.01	0.96	20.5	7.44	24.2				
12	9807-402	122.20.Eff-31	7/19/98 10:11	7/19/98 17:10	0.01	29.07	365	1.29	0.020	24.0	7.9	2.01	0.96	1.05	20.5	7.50	24.2				

ND: Non-detect. Blank Results: Either analysis was not performed or result did not meet ICR QC requirements.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #2

Client: City of Greensboro **Study#:** 122

#	SamplesID	ClientSampleID	F-S L (days)	TOC (mg/L)	TOX (µg Cl-/L)	Trihalomethanes (µg/L)					Haloacetic Acids (µg/L)										NH3-N	Brom
						CF	BDCM	DBCM	BF	TTHM	MCAA	DCAA	TCAA	MBAA	DBAA	BCAA	BDCAA	DBCAA	TBAA	HAA6	HAA9	(mg/L)	(µg/L)
Effluent C		**EBCT:** 10 min	**Carbon Type:** Bituminous			**Influent pH:** 7.6			**Scaling Factor:** 12.6														
1	9806-618	122.10.Eff-1	2	0.10	2	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
2	9806-622	122.10.Eff-5	42	0.21	6	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3	9806-623	122.10.Eff-6	49	0.31	13	1.3	1.7	1.8	ND	**4.8**	ND	ND	ND	ND	ND	1	ND	ND	ND	**1**	**1**		
4	9806-624	122.10.Eff-7	53	0.53	20	2.1	1.9	2.7	ND	**6.7**	ND	1	ND	ND	ND	1	1	ND	ND	**3**	**4**		
4d	9806-648	122.10.Eff-7d	53	0.53	21	2.3	2.1	2.9	ND	**7.3**	ND	1	ND	ND	ND	1	1	ND	ND	**2**	**4**		
5	9806-626	122.10.Eff-9	60	0.61	27	3.2	2.5	3.8	ND	**9.6**	ND	2	1	ND	ND	1	1	ND	ND	**4**	**5**		
6	9806-627	122.10.Eff-10	64	0.75	38	4.6	2.8	4.8	ND	**12.1**	ND	2	2	ND	ND	2	1	ND	ND	**5**	**7**		
7	9806-630	122.10.Eff-13	75	0.84	50	6.8	2.8	5.9	ND	**15.5**	ND	3	3	ND	ND	2	2	ND	ND	**8**	**9**		
7d	9806-651	122.10.Eff-13d	75	0.86	50	6.8	2.9	5.9	ND	**15.5**	ND	3	3	ND	ND	2	2	ND	ND	**8**	**10**		
8	9806-632	122.10.Eff-15	82	0.96	59	8.7	2.6	6.5	ND	**17.7**	ND	4	3	ND	ND	2	2	ND	ND	**9**	**11**		
9	9806-639	122.10.Eff-22	107	1.05	75	12.3	2.5	7.5	ND	**22.3**	ND	5	4	ND	ND	2	2	ND	ND	**11**	**13**		
10	9806-641	122.10.Eff-24	133	1.23	87	15.8	2.3	8.4	ND	**26.5**	ND	6	6	ND	ND	2	3	ND	ND	**14**	**17**		
10d	9806-656	122.10.Eff-24d	133	1.23	88	15.5	2.2	8.3	ND	**26.0**	ND	6	5	ND	ND	2	2	ND	ND	**13**	**15**		
11	9806-646	122.10.Eff-29	170	1.31	101	18.5	2.3	8.6	ND	**29.4**	ND	7	7	ND	ND	2	3	ND	ND	**17**	**20**		
12	9807-82	122.10.Eff-31	192	1.40	111	21.2	2.1	9.3	ND	**32.6**	ND	7	7	ND	ND	3	3	ND	ND	**17**	**20**		
13	9807-83	122.10.Eff-32	210	1.38																			
Effluent C		**EBCT:** 20 min	**Carbon Type:** Bituminous			**Influent pH:** 7.6			**Scaling Factor:** 12.6														
1	9806-658	122.20.Eff-1	2	0.10	3	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
2	9806-664	122.20.Eff-7	101	0.21	11	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3	9806-667	122.20.Eff-10	112	0.32	11	ND	1.4	1.4	ND	**2.8**	ND	ND	ND	ND	ND	1	1	ND	ND	**1**	**2**		
3d	9806-688	122.20.Eff-10d	112	0.33	11	ND	1.3	1.3	ND	**2.5**	ND	ND	ND	ND	ND	1	1	ND	ND	**1**	**2**		
4	9806-670	122.20.Eff-13	123	0.41	15	1.3	1.8	2.0	ND	**5.2**	ND	ND	ND	ND	ND	1	1	ND	ND	**1**	**2**		
5	9806-672	122.20.Eff-15	130	0.56	17	1.8	2.2	2.6	ND	**6.6**	ND	1	1	ND	ND	1	1	ND	ND	**4**	**5**		
6	9806-678	122.20.Eff-21	163	0.65	31	4.0	2.9	4.7	ND	**11.6**	ND	2	1	ND	ND	2	2	ND	ND	**5**	**7**		
7	9806-680	122.20.Eff-23	182	0.81	41	6.4	3.1	6.0	ND	**15.5**	ND	2	2	ND	ND	2	2	ND	ND	**6**	**8**		
7d	9806-691	122.20.Eff-23d	182	0.80	43	6.0	2.7	5.6	ND	**14.3**	ND	3	2	ND	ND	2	2	ND	ND	**6**	**8**		
8	9806-684	122.20.Eff-27	215	0.91	57	9.0	2.7	6.5	ND	**18.2**	ND	5	4	ND	1	2	2	ND	ND	**12**	**14**		
9	9806-685	122.20.Eff-28	248	0.97	68	10.3	2.8	7.1	ND	**20.2**	ND	4	3	ND	ND	2	2	ND	ND	**9**	**11**		
10	9806-686	122.20.Eff-29	285	1.02	70	11.3	2.7	7.3	ND	**21.3**	ND	4	3	ND	ND	2	2	ND	ND	**10**	**12**		
11	9806-687	122.20.Eff-30	325	1.22	86	12.7	2.2	7.4	ND	**22.3**	ND	5	5	ND	ND	2	3	ND	ND	**12**	**15**		
11d	9806-692	122.20.Eff-30d	325	1.21	87	13.3	2.2	7.7	ND	**23.2**	ND	5	6	ND	ND	2	3	ND	ND	**13**	**16**		
12	9807-402	122.20.Eff-31	365	1.29	93	14.5	2.1	7.8	ND	**24.3**	ND	5	6	ND	ND	2	3	ND	ND	**13**	**16**		

ND: Non-detect. Blank Results: Either analysis was not performed or result did not meet ICR QC requirements.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #2

Client: City of Greensboro **Study#:** 122

No.	Sample ID	Client Sample ID	Start Date/Time	End Date/Time	Stop T (days)	Run L (days)	F-S L (days)	TOC (mg/L)	UV254 (1/cm)	Temp (ºC)	pH	SDS Chlorination Conditions* Dose (mg/L)	Res. (mg/L)	Dem (mg/L)	Temp (ºC)	pH	Time hrs	Alk. (mg/L)	Hard-Tot (mg/L as CaCO3)	Hard-CA	Turb. (ntu)
13	9807-403	122.20.Eff-32	7/20/98 14:17	7/20/98 21:15	0.01	30.24	380	1.31	0.020	24.2	7.9										
Influent A		**EBCT:**	**Carbon Type:**		**Influent pH:** 7.6		**Scaling Factor:** 12.6														
1	9806-698	122.Inf.A-1	6/20/98 12:15	6/20/98 12:15	0.02		0											29	30	18	
2	9806-699	122.Inf.A-2	7/6/98 14:30	7/6/98 14:30	16.11		203											23	31	19	
Influent B		**EBCT:**	**Carbon Type:**		**Influent pH:** 7.6		**Scaling Factor:** 12.6														
1	9806-700	122.Inf.B-1	6/20/98 12:20	6/20/98 12:20	0.02		0	1.89	0.038	24.0	7.6	2.51	0.99	1.52	21.8	7.52	24.2				0.10
2	9806-701	122.Inf.B-2	6/26/98 16:25	6/26/98 16:25	6.19		78	1.90													
3	9806-702	122.Inf.B-3	6/29/98 14:50	6/29/98 14:50	9.13		115	1.90													
4	9806-703	122.Inf.B-4	7/6/98 14:35	7/6/98 14:35	16.12		203	1.87	0.038	18.2	7.6	2.53	0.99	1.54	21.7	7.49	24.5				
5	9806-704	122.Inf.B-5	7/15/98 14:15	7/15/98 14:15	25.10		316	1.86													
6	9806-705	122.Inf.B-6	7/20/98 10:00	7/20/98 10:00	29.93		376	1.86	0.038	21.1	7.6	2.54	0.96	1.58	20.5	7.46	24.3				0.15
PreStudy		**EBCT:**	**Carbon Type:**		**Influent pH:**		**Scaling Factor:**														
1	9806-418	122.Settled.Day-1	6/16/98 0:00	6/16/98 0:00				2.02													
2	9806-419	122.Raw.Day-1	6/16/98 0:00	6/16/98 0:00				3.36													
3	9806-444	122.Raw.Day2	6/16/98 10:10	6/16/98 10:10				3.25													
4	9806-445	122.Settled.Barrel	6/16/98 10:10	6/16/98 10:10				1.98													
5	9806-446	122.Filtered.Day2	6/16/98 10:10	6/16/98 10:10				1.90													
6	9806-610	122. Settled . On	6/19/98 11:00	6/19/98 11:00				1.98													
7	9806-611	122. Filtered .	6/19/98 11:15	6/19/98 11:15				1.85													

***Target SDS Chlorination Conditions**

Free Cl2 Residual: 1.00 mg/L **pH:** 7.5 **Temperature:** 22.0 ºC **Holding time:** 24.0 hrs

Study Comments

ND: Non-detect. Blank Results: Either analysis was not performed or result did not meet ICR QC requirements.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #2

Client: City of Greensboro **Study#:** 122

#	SamplesID	ClientSampleID	F-S L (days)	TOC (mg/L)	TOX (µg Cl-/L)	Trihalomethanes (µg/L)					Haloacetic Acids (µg/L)											NH3-N (mg/L)	Brom (µg/L)
						CF	BDCM	DBCM	BF	TTHM	MCAA	DCAA	TCAA	MBAA	DBAA	BCAA	BDCAA	DBCAA	TBAA	HAA6	HAA9		
13	9807-403	122.20.Eff-32	380	1.31																			
Influent A		**EBCT:**	**Carbon Type:**			**Influent pH:**	7.6		**Scaling Factor:**	12.6													
1	9806-698	122.Inf.A-1	0																			ND	22
2	9806-699	122.Inf.A-2	203																			0.06	21
Influent B		**EBCT:**	**Carbon Type:**			**Influent pH:**	7.6		**Scaling Factor:**	12.6													
1	9806-700	122.Inf.B-1	0	1.89	177	31.9	1.4	8.7	ND	**42.0**	ND	10	9	ND	ND	2	2	ND	ND	**21**	**24**		
2	9806-701	122.Inf.B-2	78	1.90																			
3	9806-702	122.Inf.B-3	115	1.90																			
4	9806-703	122.Inf.B-4	203	1.87	175	34.7	1.3	9.9	ND	**45.9**	ND	11	12	ND	ND	2	3	ND	ND	**25**	**28**		
5	9806-704	122.Inf.B-5	316	1.86																			
6	9806-705	122.Inf.B-6	376	1.86	170	29.5	1.2	8.8	ND	**39.6**	ND	11	13	ND	ND	2	3	ND	ND	**26**	**29**		
PreStudy		**EBCT:**	**Carbon Type:**			**Influent pH:**			**Scaling Factor:**														
1	9806-418	122.Settled.Day-1		2.02																			
2	9806-419	122.Raw.Day-1		3.36																			
3	9806-444	122.Raw.Day2		3.25																			
4	9806-445	122.Settled.Barrel		1.98																			
5	9806-446	122.Filtered.Day2		1.90																			
6	9806-610	122. Settled . On Arrival		1.98																			
7	9806-611	122. Filtered . Cartridge		1.85																			

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #3

Client: City of Greensboro **Study#:** 147

													SDS Chlorination Conditions*								
No.	Sample ID	Client Sample ID	Start Date/Time	End Date/Time	Stop T (days)	Run L (days)	F-S L (days)	TOC (mg/L)	UV254 (1/cm)	Temp (ºC)	pH	Dose (mg/L)	Res. (mg/L)	Dem (mg/L)	Temp (ºC)	pH	Time hrs	Alk. (mg/L)	Hard-Tot (mg/L as CaCO3)	Hard-CA	Turb. (ntu)
Effluent C		**EBCT:** 14.36 min	**Carbon Type:** Bituminous		**Influent pH:** 7.6		**Scaling Factor:** 12.6														
1	9810-174	147.20.Eff-1	10/8/98 16:58	10/9/98 7:51	0.01	0.35	4	0.14	0.001	20.5	8.0	1.66	0.97	0.69	19.9	7.65	24.0				
2	9810-180	147.20.Eff-7	10/15/98 2:38	10/15/98 8:03	0.01	6.56	82	0.27	0.002	20.4	7.8	1.85	1.35	0.50	19.8	7.63	24.1				
3	9810-182	147.20.Eff-9	10/15/98 13:24	10/15/98 18:37	0.01	7.00	88	0.35	0.002	21.6	7.8	1.91	1.35	0.56	19.8	7.63	24.1				
3d	9810-204	147.20.Eff-9d	10/15/98 13:24	10/15/98 18:37	0.01	7.00	88	0.35	0.003	21.5	7.8	1.91	1.31	0.60	19.8	7.63	24.1				
4	9810-185	147.20.Eff-12	10/16/98 5:08	10/16/98 10:26	0.01	7.66	96	0.47	0.003	20.9	7.7	1.98	1.34	0.64	19.8	7.63	24.1				
5	9810-186	147.20.Eff-13	10/16/98 20:55	10/17/98 2:11	0.05	8.28	104	0.61	0.005	21.2	7.8	2.08	1.36	0.72	19.8	7.64	24.1				
6	9810-191	147.20.Eff-18	10/18/98 0:14	10/18/98 5:40	0.05	9.42	118	0.73	0.006	21.7	7.8	1.78	0.97	0.81	19.9	7.63	23.7				
7	9810-194	147.20.Eff-21	10/19/98 13:43	10/19/98 19:02	0.05	10.98	138	0.87	0.008	21.3	7.7	1.86	1.07	0.79	19.9	7.63	23.8				
7d	9810-209	147.20.Eff-21d	10/19/98 13:43	10/19/98 19:02	0.05	10.98	138	0.86	0.008	21.2	7.7	1.86	1.03	0.83	19.9	7.63	23.8				
8	9810-197	147.20.Eff-24	10/20/98 21:47	10/21/98 3:02	0.06	12.31	155	0.97	0.010	20.6	7.8	1.92	0.99	0.93	19.9	7.64	24.1				
9	9810-198	147.20.Eff-25	10/21/98 13:36	10/21/98 18:52	0.06	12.97	163	1.07	0.011	21.3	7.8	1.95	0.72	1.23	19.9	7.63	24.3				
10	9810-202	147.20.Eff-29	10/24/98 4:34	10/24/98 9:51	0.06	15.59	196	1.19	0.013	19.1		2.02	0.77	1.25	19.9	7.62	24.4				
11	9810-203	147.20.Eff-30	10/26/98 9:16	10/26/98 14:33	0.06	17.79	224	1.35	0.016	20.4	7.7	2.29	1.00	1.29	19.8	7.63	23.8				
11d	9810-211	147.20.Eff-30d	10/26/98 9:16	10/26/98 14:33	0.06	17.79	224	1.37	0.016	20.4	7.7	2.29	1.00	1.29	19.8	7.64	23.9				
12	9810-499	147.20.Eff-31	10/27/98 11:29	10/27/98 14:48	0.06	18.84	237	1.40	0.017												
13	9810-501	147.20.Eff-33	10/29/98 12:13	10/29/98 14:45	0.06	20.85	262	1.48	0.018	22.3	7.8	2.38	0.97	1.41	19.9	7.64	24.0				
Effluent C		**EBCT:** 7.18 min	**Carbon Type:** Bituminous		**Influent pH:** 7.6		**Scaling Factor:** 12.6														
1	9810-134	147.10.Eff-1	10/8/98 16:58	10/8/98 22:33		0.17	2	0.10	0.000	21.8	7.9	1.75	0.99	0.76	19.9	7.65	23.9				
2	9810-138	147.10.Eff-5	10/11/98 8:20	10/11/98 13:30		2.80	35	0.26	0.002	21.5	7.7	1.83	0.91	0.92	20.1	7.63	24.0				
3	9810-139	147.10.Eff-6	10/11/98 13:30	10/11/98 18:35		3.02	38	0.36	0.002	22.0	7.7	1.90	0.99	0.91	20.1	7.63	24.1				
4	9810-140	147.10.Eff-7	10/11/98 18:35	10/11/98 23:41		3.23	41	0.48	0.003	21.6	7.8	1.99	0.96	1.03	20.1	7.63	24.1				
5	9810-141	147.10.Eff-8	10/11/98 23:41	10/12/98 4:50		3.44	43	0.59	0.005	21.4	7.8	2.08	1.01	1.07	20.1	7.61	24.1				
5d	9810-165	147.10.Eff-8d	10/11/98 23:41	10/12/98 4:50		3.44	43	0.60	0.004	21.3	7.8	2.08	1.00	1.08	20.1	7.61	24.1				
6	9810-143	147.10.Eff-10	10/12/98 9:59	10/12/98 15:07		3.87	49	0.78	0.007	21.5	7.7	2.20	1.04	1.16	20.1	7.61	24.1				
7	9810-145	147.10.Eff-12	10/12/98 20:11	10/13/98 1:06		4.29	54	0.88	0.009	20.7	7.7	2.28	1.04	1.24	20.1	7.61	24.1				
7d	9810-166	147.10.Eff-12d	10/12/98 20:11	10/13/98 1:06		4.29	54	0.88	0.009	20.6	7.7	2.28	1.05	1.23	20.1	7.61	24.1				
8	9810-147	147.10.Eff-14	10/13/98 11:11	10/13/98 16:24		4.92	62	1.04	0.011	21.5	7.7	2.40	1.07	1.33	20.1	7.63	24.1				
9	9810-150	147.10.Eff-17	10/14/98 8:07	10/14/98 13:20		5.79	73	1.15	0.013	20.4	7.8	2.41	1.01	1.40	19.8	7.64	24.0				
10	9810-153	147.10.Eff-20	10/15/98 9:50	10/15/98 14:55		6.86	86	1.29	0.015	21.1	7.7	2.50	1.00	1.50	19.8	7.63	24.0				
10d	9810-168	147.10.Eff-20d	10/15/98 9:50	10/15/98 14:55		6.86	86	1.29	0.015	21.2	7.8	2.50	1.02	1.48	19.8	7.63	24.1				
11	9810-156	147.10.Eff-23	10/17/98 13:36	10/17/98 18:45		9.02	113	1.42	0.018	21.9	7.7	2.56	1.08	1.48	19.9	7.64	23.7				
12	9810-158	147.10.Eff-25	10/20/98 4:10	10/20/98 9:39		11.64	146	1.51	0.021	20.2	7.6	2.61	0.99	1.62	19.9	7.63	23.7				

ND: Non-detect. Blank Results: Either analysis was not performed or result did not meet ICR QC requirements.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #3

Client: City of Greensboro **Study#:** 147

#	SamplesID	ClientSampleID	F-S L (days)	TOC (mg/L)	TOX (µg Cl-/L)	Trihalomethanes (µg/L)					Haloacetic Acids (µg/L)										NH3-N	Brom
						CF	BDCM	DBCM	BF	TTHM	MCAA	DCAA	TCAA	MBAA	DBAA	BCAA	BDCAA	DBCAA	TBAA	HAA6	HAA9	(mg/L)	(µg/L)
Effluent C		**EBCT:** 14.36 min	**Carbon Type:** Bituminous			**Influent pH:** 7.6			**Scaling Factor:** 12.6														
1	9810-174	147.20.Eff-1	4	0.14	5	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
2	9810-180	147.20.Eff-7	82	0.27	9	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3	9810-182	147.20.Eff-9	88	0.35	13	1.3	1.4	1.5	ND	**4.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3d	9810-204	147.20.Eff-9d	88	0.35	15	1.5	1.6	1.7	ND	**4.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
4	9810-185	147.20.Eff-12	96	0.47	19	1.9	1.9	2.2	ND	**6.0**	ND	1	ND	ND	ND	1	ND	ND	ND	**2**	**2**		
5	9810-186	147.20.Eff-13	104	0.61	25	2.7	2.4	3.1	ND	**8.2**	ND	2	ND	ND	ND	1	1	ND	ND	**3**	**4**		
6	9810-191	147.20.Eff-18	118	0.73	31	3.9	2.9	4.3	ND	**11.1**	ND	2	1	ND	ND	2	1	ND	ND	**5**	**6**		
7	9810-194	147.20.Eff-21	138	0.87	39	5.5	3.1	5.3	ND	**13.9**	ND	2	1	ND	ND	2	1	ND	ND	**5**	**7**		
7d	9810-209	147.20.Eff-21d	138	0.86	44	5.6	3.4	5.6	ND	**14.6**	ND	2	2	ND	ND	2	1	ND	ND	**6**	**7**		
8	9810-197	147.20.Eff-24	155	0.97	50	6.8	3.2	6.0	ND	**16.0**	ND	3	2	ND	ND	2	2	ND	ND	**7**	**8**		
9	9810-198	147.20.Eff-25	163	1.07	60	9.3	3.5	7.2	ND	**20.0**	ND	3	2	ND	ND	2	2	ND	ND	**8**	**9**		
10	9810-202	147.20.Eff-29	196	1.19	71	11.4	3.5	8.0	ND	**22.9**	ND	4	3	ND	ND	2	2	ND	ND	**9**	**11**		
11	9810-203	147.20.Eff-30	224	1.35	81	14.2	3.2	8.4	ND	**25.7**	ND	5	5	ND	ND	2	2	ND	ND	**12**	**14**		
11d	9810-211	147.20.Eff-30d	224	1.37	76	14.0	3.3	8.5	ND	**25.7**	ND	5	5	ND	ND	2	2	ND	ND	**13**	**16**		
12	9810-499	147.20.Eff-31	237	1.40																			
13	9810-501	147.20.Eff-33	262	1.48	94	16.7	5.3	10.9	1.0	**34.0**	ND	6	5	ND	ND	3	2	ND	ND	**14**	**16**		
Effluent C		**EBCT:** 7.18 min	**Carbon Type:** Bituminous			**Influent pH:** 7.6			**Scaling Factor:** 12.6														
1	9810-134	147.10.Eff-1	2	0.10	2	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
2	9810-138	147.10.Eff-5	35	0.26	7	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3	9810-139	147.10.Eff-6	38	0.36	13	1.4	1.2	1.5	ND	**4.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
4	9810-140	147.10.Eff-7	41	0.48	19	2.1	1.7	2.3	ND	**6.1**	ND	1	ND	ND	ND	1	ND	ND	ND	**2**	**2**		
5	9810-141	147.10.Eff-8	43	0.59	26	2.7	2.0	3.0	ND	**7.7**	ND	1	1	ND	ND	1	1	ND	ND	**4**	**5**		
5d	9810-165	147.10.Eff-8d	43	0.60	23	2.7	1.9	3.0	ND	**7.6**	ND	2	ND	ND	ND	1	1	ND	ND	**3**	**4**		
6	9810-143	147.10.Eff-10	49	0.78	36	4.0	2.5	4.1	ND	**10.6**	ND	2	2	ND	ND	2	2	ND	ND	**6**	**7**		
7	9810-145	147.10.Eff-12	54	0.88	43	5.8	2.7	5.2	ND	**13.7**	ND	3	2	ND	ND	2	2	ND	ND	**7**	**9**		
7d	9810-166	147.10.Eff-12d	54	0.88	43	5.8	2.7	5.3	ND	**13.8**	ND	3	2	ND	ND	2	2	ND	ND	**7**	**8**		
8	9810-147	147.10.Eff-14	62	1.04	56	7.8	2.9	6.2	ND	**16.9**	ND	4	3	ND	ND	2	2	ND	ND	**9**	**12**		
9	9810-150	147.10.Eff-17	73	1.15	71	9.9	2.8	6.9	ND	**19.7**	ND	4	3	ND	ND	2	2	ND	ND	**9**	**11**		
10	9810-153	147.10.Eff-20	86	1.29	82	12.0	2.9	7.6	ND	**22.5**	ND	5	4	ND	ND	2	2	ND	ND	**11**	**13**		
10d	9810-168	147.10.Eff-20d	86	1.29	78	12.3	2.8	7.8	ND	**22.9**	ND	5	4	ND	ND	2	2	ND	ND	**11**	**13**		
11	9810-156	147.10.Eff-23	113	1.42	91	15.3	3.8	9.8	ND	**28.8**	ND	5	4	ND	ND	3	2	ND	ND	**12**	**14**		
12	9810-158	147.10.Eff-25	146	1.51	101	18.3	2.9	9.3	ND	**30.5**	ND	6	6	ND	ND	2	2	ND	ND	**15**	**17**		

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #3

Client: City of Greensboro **Study#:** 147

No.	Sample ID	Client Sample ID	Start Date/Time	End Date/Time	Stop T (days)	Run L (days)	F-S L (days)	TOC (mg/L)	UV254 (1/cm)	Temp (ºC)	pH	SDS Chlorination Conditions* Dose (mg/L)	Res. (mg/L)	Dem (mg/L)	Temp (ºC)	pH	Time hrs	Alk. (mg/L)	Hard-Tot (mg/L as CaCO3)	Hard-CA	Turb. (ntu)
13	9810-159	147.10.Eff-26	10/23/98 0:37	10/23/98 5:55		14.48	182	1.67	0.022	18.8	7.7	2.68	0.92	1.76	19.9	7.62	24.3				
Influent A		**EBCT:**	**Carbon Type:**		**Influent pH:** 7.6		**Scaling Factor:** 12.6														
1	9810-214	147.Inf.A-1	10/8/98 17:20	10/8/98 17:20		0.07	1											24	32	21	
2	9810-215	147.Inf.A-2	10/20/98 10:00	10/20/98 10:00		11.76	148											21	32	21	
Influent B		**EBCT:**	**Carbon Type:**		**Influent pH:** 7.6		**Scaling Factor:** 12.6														
1	9810-216	147.Inf.B-1	10/8/98 17:25	10/8/98 17:25		0.07	1	2.00	0.032	19.9	7.6	3.35	1.02	2.33	19.9	7.71	24.0				0.10
2	9810-217	147.Inf.B-2	10/12/98 10:12	10/12/98 10:12		3.77	47	2.00		17.6	7.6										
3	9810-218	147.Inf.B-3	10/14/98 10:25	10/14/98 10:25		5.78	73	2.07		16.5	7.7										
4	9810-219	147.Inf.B-4	10/20/98 10:00	10/20/98 10:00		11.76	148	1.96	0.032	15.8	7.6										0.10
5	9810-220	147.Inf.B-5	10/26/98 10:15	10/26/98 10:15		17.77	223	2.01	0.033	16.7	7.7	3.33	1.01	2.32	19.8	7.63	23.9				0.10
6	9810-221	147.Inf.B-6	10/29/98 8:00	10/29/98 8:00		20.68	260	2.04	0.033	18.7	7.6	3.32	1.03	2.29	19.9	7.67	23.9				0.05
PreStudy		**EBCT:**	**Carbon Type:**		**Influent pH:**		**Scaling Factor:**														
1	9810-89	Greens.Settled	10/5/98 12:50	10/5/98 12:50				2.02													
2	9810-120	Green.Filtered	10/6/98 13:00	10/6/98 13:00				2.21													
3	9810-121	Green.Raw	10/6/98 13:00	10/6/98 13:00				3.24													
4	9810-119	Green.Settled	10/6/98 13:00	10/6/98 13:00				2.01													
5	9810-131	Settled on Arrival	10/8/98 11:30	10/8/98 11:30				2.04													
6	9810-132	Filtered on Arrival	10/8/98 12:55	10/8/98 12:55				1.98													

***Target SDS Chlorination Conditions**

Free Cl2 Residual: 1.00 mg/L **pH:** 7.7 **Temperature:** 20.0 ºC **Holding time:** 24.0 hrs

Study Comments

An error occurred in the initial design. Instead of running EBCTs of 10 and 20 minutes, the actual EBCTs were 7.18 and 14.36 minutes.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #3

Client: City of Greensboro **Study#:** 147

#	SamplesID	ClientSampleID	F-S L (days)	TOC (mg/L)	TOX (µg Cl-/L)	Trihalomethanes (µg/L) CF	BDCM	DBCM	BF	TTHM	Haloacetic Acids (µg/L) MCAA	DCAA	TCAA	MBAA	DBAA	BCAA	BDCAA	DBCAA	TBAA	HAA6	HAA9	NH3-N (mg/L)	Brom (µg/L)
13	9810-159	147.10.Eff-26	182	1.67	113	23.6	2.8	10.2	ND	**36.6**	ND	7	6	ND	ND	3	2	ND	ND	**16**	**18**		
Influent A	**EBCT:**	**Carbon Type:**				**Influent pH:** 7.6			**Scaling Factor:** 12.6														
1	9810-214	147.Inf.A-1	1																			0.06	28
2	9810-215	147.Inf.A-2	148																			0.09	28
Influent B	**EBCT:**	**Carbon Type:**				**Influent pH:** 7.6			**Scaling Factor:** 12.6														
1	9810-216	147.Inf.B-1	1	2.00	152	28.9	2.2	9.9	ND	**41.0**	ND	11	12	ND	ND	3	3	ND	ND	**27**	**30**		
2	9810-217	147.Inf.B-2	47	2.00																			
3	9810-218	147.Inf.B-3	73	2.07																			
4	9810-219	147.Inf.B-4	148	1.96																			
5	9810-220	147.Inf.B-5	223	2.01	157	31.0	2.3	10.2	ND	**43.5**	ND	10	11	ND	ND	3	3	ND	ND	**24**	**26**		
6	9810-221	147.Inf.B-6	260	2.04	158	27.4	3.2	10.7	ND	**41.3**	ND	11	14	ND	ND	3	3	ND	ND	**29**	**32**		
PreStudy	**EBCT:**	**Carbon Type:**				**Influent pH:**			**Scaling Factor:**														
1	9810-89	Greens.Settled		2.02																			
2	9810-120	Green.Filtered		2.21																			
3	9810-121	Green.Raw		3.24																			
4	9810-119	Green.Settled		2.01																			
5	9810-131	Settled on Arrival		2.04																			
6	9810-132	Filtered on Arrival		1.98																			

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #4

Client: City of Greensboro **Study#:** 205

No.	Sample ID	Client Sample ID	Start Date/Time	End Date/Time	Stop T (days)	Run L (days)	F-S L (days)	TOC (mg/L)	UV254 (1/cm)	Temp (ºC)	pH	SDS Chlorination Conditions* Dose (mg/L)	Res. (mg/L)	Dem (mg/L)	Temp (ºC)	pH	Time hrs	Alk. (mg/L)	Hard-Tot (mg/L as CaCO3)	Hard-CA	Turb. (ntu)
Effluent C		**EBCT:** 10 min	**Carbon Type:** Bituminous		**Influent pH:** 7.8		**Scaling Factor:** 12.6														
1	9901-18	205.10.Eff-1	1/10/99 19:11	1/11/99 1:58		0.19	2	0.37	0.000	22.0	8.2	1.70	0.77	0.93	8.6	7.65	23.9				
2	9901-32	205.10.Eff-15	1/15/99 14:32	1/15/99 21:20		5.00	63	0.42	0.004	22.0	7.6	1.29	0.71	0.58	8.6	7.61	23.9				
3	9901-34	205.10.Eff-17	1/16/99 4:07	1/16/99 10:55		5.56	70	0.55	0.005	22.2	7.7	1.34	0.45	0.89	8.6	7.60	24.0				
3d	9901-51	205.10.Eff-17d	1/16/99 4:07	1/16/99 10:55		5.56	70	0.56	0.005	22.1	7.7	1.34	0.64	0.70	8.6	7.61	24.0				
4	9901-36	205.10.Eff-19	1/16/99 17:38	1/17/99 0:20		6.12	77	0.64	0.006	21.9	7.7	1.37	0.63	0.74	8.6	7.62	24.0				
5	9901-37	205.10.Eff-20	1/17/99 7:01	1/17/99 13:42		6.68	84	0.77	0.007	22.2	7.6	1.42	0.72	0.70	8.6	7.62	24.1				
6	9901-42	205.10.Eff-25	1/18/99 16:37	1/18/99 23:25		8.08	102	0.89	0.009	22.4	7.5	1.97	1.21	0.76	8.6	7.67	24.0				
7	9901-45	205.10.Eff-28	1/19/99 13:11	1/19/99 19:53		8.94	112	0.98	0.010	22.4	7.8	2.02	1.19	0.83	8.6	7.64	24.0				
7d	9901-53	205.10.Eff-28d	1/19/99 13:11	1/19/99 19:53		8.94	112	0.98	0.010	22.3	7.8	2.02	1.21	0.81	8.6	7.65	24.0				
8	9901-222	205.10.Eff-31	1/21/99 5:50	1/21/99 12:40	0.02	10.62	133	1.11	0.013	21.4	7.7	1.89	1.02	0.87	8.6	7.65	23.5				
9	9901-224	205.10.Eff-33	1/23/99 12:51	1/23/99 19:24	0.08	12.84	161	1.23	0.015	21.6	7.7	1.94	1.04	0.90	8.7	7.61	24.1				
10	9901-228	205.10.Eff-37	1/26/99 4:39	1/26/99 11:32	0.18	15.40	194	1.37	0.019	21.7	7.8	1.95	0.96	0.99	8.8	7.65	24.1				
11	9901-229	205.10.Eff-38	1/27/99 23:33	1/27/99 6:21	0.24	16.63	209	1.43	0.018	21.9	7.8	1.99	0.99	1.00	8.9	7.71	24.0				
11d	9901-56	205.10.Eff-38d	1/27/99 23:33	1/27/99 6:21	0.24	16.63	209	1.42	0.018	21.8	7.8	1.99	0.96	1.03	8.9	7.71	24.0				
12	9901-231	205.10.Eff-40	2/1/99 1:42	2/1/99 8:07	0.34	21.12	265	1.50	0.020	21.8	7.8	2.02	0.99	1.03	8.8	7.70	24.0				
Effluent C		**EBCT:** 20 min	**Carbon Type:** Bituminous		**Influent pH:** 7.8		**Scaling Factor:** 12.6														
1	9901-58	205.20.Eff-1	1/10/99 19:11	1/11/99 1:47		0.19	2	0.35	0.001	22.5	8.8	1.80	0.90	0.90	8.6	7.72	23.9				
2	9901-64	205.20.Eff-7	1/24/99 2:53	1/24/99 9:33	0.39	13.12	165	0.46	0.004	23.1	7.8	1.54	0.90	0.64	8.7	7.59	24.1				
3	9901-66	205.20.Eff-9	1/24/99 16:16	1/24/99 23:09	0.40	13.67	172	0.55	0.005	23.3	7.7	1.65	0.98	0.67	8.8	7.64	24.1				
3d	9901-88	205.20.Eff-9d	1/24/99 16:16	1/24/99 23:09	0.40	13.67	172	0.54	0.005	23.3	7.7	1.65	0.96	0.69	8.8	7.63	24.2				
4	9901-70	205.20.Eff-13	1/26/99 2:43	1/26/99 9:36	0.42	15.09	190	0.66	0.005	22.4	7.8	1.69	1.01	0.68	8.8	7.64	24.2				
5	9901-73	205.20.Eff-16	1/28/99 13:25	1/28/99 20:12	0.57	17.38	219	0.77	0.007	23.0	7.7	1.74	1.01	0.73	8.9	7.69	24.0				
6	9901-74	205.20.Eff-17	1/30/99 6:52	1/30/99 13:38	0.57	19.11	240	0.83	0.008	22.5	7.9	1.76	1.04	0.72	8.9	7.70	24.0				
7	9901-76	205.20.Eff-19	2/1/99 6:35	2/1/99 13:11	0.60	21.07	265	0.87	0.009	22.4	7.6	1.77	0.95	0.82	8.8	7.70	24.0				
7d	9901-90	205.20.Eff-19d	2/1/99 6:35	2/1/99 13:11	0.60	21.07	265	0.85	0.009	22.3	7.6	1.77	1.04	0.73	8.8	7.70	24.0				
8	9901-77	205.20.Eff-20	2/3/99 4:05	2/3/99 11:05	0.75	22.82	287	0.98	0.010	22.4	7.6	1.82	0.98	0.84	8.8	7.71	24.0				
9	9901-78	205.20.Eff-21	2/4/99 20:50	2/5/99 3:33	0.75	24.50	308	1.04	0.011	22.4	7.6	1.83	0.97	0.86	8.8	7.69	24.2				
10	9901-79	205.20.Eff-22	2/6/99 23:19	2/7/99 6:03	0.89	26.47	333	1.10	0.013	22.7	7.8	1.85	1.00	0.85	8.8	7.72	24.2				
10d	9901-91	205.20.Eff-22d	2/6/99 23:19	2/7/99 6:03	0.89	26.47	333	1.12	0.013	22.6	7.7	1.85	0.88	0.97	8.8	7.72	24.2				
11	9901-80	205.20.Eff-23	2/8/99 17:30	2/9/99 0:34	0.97	28.16	354	1.19	0.015	22.4	7.8	1.91	1.07	0.84	8.8	7.70	24.0				
12	9901-81	205.20.Eff-24	2/10/99 11:26	2/10/99 14:59	1.02	29.78	374	1.20	0.015	22.7	7.7	1.92	1.01	0.91	8.8	7.72	24.0				

ND: Non-detect. Blank Results: Either analysis was not performed or result did not meet ICR QC requirements.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #4

Client: City of Greensboro **Study#:** 205

#	SamplesID	ClientSampleID	F-S L (days)	TOC (mg/L)	TOX (µg Cl-/L)	Trihalomethanes (µg/L)					Haloacetic Acids (µg/L)											NH3-N	Brom
						CF	BDCM	DBCM	BF	TTHM	MCAA	DCAA	TCAA	MBAA	DBAA	BCAA	BDCAA	DBCAA	TBAA	HAA6	HAA9	(mg/L)	(µg/L)
Effluent C		**EBCT:** 10 min	**Carbon Type:** Bituminous			**Influent pH:** 7.8			**Scaling Factor:** 12.6														
1	9901-18	205.10.Eff-1	2	0.37	6	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
2	9901-32	205.10.Eff-15	63	0.42	12	ND	ND	1.0	ND	**1.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3	9901-34	205.10.Eff-17	70	0.55	17	ND	1.8	1.6	ND	**3.5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3d	9901-51	205.10.Eff-17d	70	0.56	17	1.1	1.2	1.5	ND	**3.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
4	9901-36	205.10.Eff-19	77	0.64	22	1.7	1.1	2.1	ND	**4.9**	ND	ND	ND	ND	ND	ND	1	ND	ND	**ND**	**1**		
5	9901-37	205.10.Eff-20	84	0.77	25	2.2	1.8	2.6	ND	**6.6**	ND	ND	1	ND	ND	ND	1	ND	ND	**1**	**2**		
6	9901-42	205.10.Eff-25	102	0.89	40	3.4	1.7	3.2	ND	**8.2**	ND	2	2	ND	ND	1	1	ND	ND	**5**	**7**		
7	9901-45	205.10.Eff-28	112	0.98	40	4.3	1.9	3.9	ND	**10.1**	ND	2	2	ND	ND	1	1	ND	ND	**6**	**7**		
7d	9901-53	205.10.Eff-28d	112	0.98	42	4.2	1.8	3.7	ND	**9.7**	ND	2	2	ND	ND	1	2	ND	ND	**6**	**7**		
8	9901-222	205.10.Eff-31	133	1.11	52	4.9	1.8	4.1	ND	**10.9**	ND	2	2	ND	ND	1	1	ND	ND	**5**	**6**		
9	9901-224	205.10.Eff-33	161	1.23	62	9.5	2.4	6.5	ND	**18.3**	ND	3	3	ND	ND	1	2	ND	ND	**7**	**9**		
10	9901-228	205.10.Eff-37	194	1.37	73	10.5	2.3	6.5	ND	**19.3**	ND	3	3	ND	ND	2	2	ND	ND	**8**	**10**		
11	9901-229	205.10.Eff-38	209	1.43	75	8.3	1.8	5.2	ND	**15.3**	ND	4	3	ND	ND	1	2	ND	ND	**8**	**10**		
11d	9901-56	205.10.Eff-38d	209	1.42	75	8.6	1.9	5.4	ND	**15.9**	ND	4	4	ND	ND	2	2	ND	ND	**10**	**12**		
12	9901-231	205.10.Eff-40	265	1.50	83	9.2	1.8	5.3	ND	**16.3**	ND	4	4	ND	ND	2	2	ND	ND	**9**	**11**		
Effluent C		**EBCT:** 20 min	**Carbon Type:** Bituminous			**Influent pH:** 7.8			**Scaling Factor:** 12.6														
1	9901-58	205.20.Eff-1	2	0.35	8	ND	ND	ND	ND	**ND**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
2	9901-64	205.20.Eff-7	165	0.46	10	ND	ND	1.1	ND	**1.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**ND**	**ND**		
3	9901-66	205.20.Eff-9	172	0.55	13	1.0	1.3	1.4	ND	**3.7**	ND	ND	ND	ND	ND	ND	1	ND	ND	**ND**	**1**		
3d	9901-88	205.20.Eff-9d	172	0.54	14	1.0	1.1	1.2	ND	**3.3**	ND	ND	ND	ND	ND	ND	1	ND	ND	**ND**	**1**		
4	9901-70	205.20.Eff-13	190	0.66	19	1.6	1.6	2.2	ND	**5.5**	ND	ND	ND	ND	ND	1	1	ND	ND	**1**	**2**		
5	9901-73	205.20.Eff-16	219	0.77	27	2.4	1.9	2.7	ND	**7.0**	ND	1	1	ND	ND	1	1	ND	ND	**4**	**5**		
6	9901-74	205.20.Eff-17	240	0.83	32	2.9	1.9	3.1	ND	**7.9**	ND	1	1	ND	ND	1	1	ND	ND	**4**	**5**		
7	9901-76	205.20.Eff-19	265	0.87	38	3.3	2.0	3.4	ND	**8.7**	ND	2	2	ND	ND	1	2	ND	ND	**5**	**7**		
7d	9901-90	205.20.Eff-19d	265	0.85	37	3.4	1.9	3.4	ND	**8.7**	ND	2	2	ND	ND	1	1	ND	ND	**5**	**6**		
8	9901-77	205.20.Eff-20	287	0.98	45	4.4	2.1	4.0	ND	**10.5**	ND	2	2	ND	ND	1	2	ND	ND	**5**	**7**		
9	9901-78	205.20.Eff-21	308	1.04	46	4.8	1.9	3.9	ND	**10.6**	ND	2	2	ND	ND	1	2	ND	ND	**6**	**8**		
10	9901-79	205.20.Eff-22	333	1.10	51	5.7	1.9	4.4	ND	**12.1**	ND	2	3	ND	ND	1	2	ND	ND	**6**	**8**		
10d	9901-91	205.20.Eff-22d	333	1.12	52	5.5	1.8	4.0	ND	**11.4**	ND	3	3	ND	ND	1	2	ND	ND	**6**	**8**		
11	9901-80	205.20.Eff-23	354	1.19	60	6.2	1.9	4.5	ND	**12.6**	ND	3	3	ND	ND	2	2	ND	ND	**7**	**9**		
12	9901-81	205.20.Eff-24	374	1.20	63	6.3	1.9	4.5	ND	**12.7**	ND	3	3	ND	ND	2	2	ND	ND	**8**	**10**		

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #4

Client: City of Greensboro **Study#:** 205

No.	Sample ID	Client Sample ID	Start Date/Time	End Date/Time	Stop T (days)	Run L (days)	F-S L (days)	TOC (mg/L)	UV254 (1/cm)	Temp (ºC)	pH	SDS Chlorination Conditions* Dose (mg/L)	Res. (mg/L)	Dem (mg/L)	Temp (ºC)	pH	Time hrs	Alk. (mg/L)	Hard-Tot (mg/L as CaCO3)	Hard-CA	Turb. (ntu)
Influent A		**EBCT:**	**Carbon Type:**		**Influent pH:** 7.8		**Scaling Factor:** 12.6														
1	9901-98	205.Inf.A-1	1/10/99 19:20	1/10/99 19:20		0.06	1											20	27	17	
2	9901-99	205.Inf.A-2	2/4/99 8:40	2/4/99 8:40		24.61	309											26	25	16	
Influent B		**EBCT:**	**Carbon Type:**		**Influent pH:** 7.8		**Scaling Factor:** 12.6														
1	9901-100	205.Inf.B-1	1/10/99 19:15	1/10/99 19:15		0.05	1	2.38	0.031	20.4	7.8	2.70	0.93	1.77	8.6	7.70	24.0				0.15
2	9901-101	205.Inf.B-2	1/17/99 10:30	1/17/99 10:30		6.69	84	2.02		17.9	7.8										
3	9901-102	205.Inf.B-3	1/23/99 12:45	1/23/99 12:45		12.78	161	2.06		18.4	7.9										
4	9901-103	205.Inf.B-4	2/2/99 11:25	2/2/99 11:25		22.73	286	2.02	0.029	19.1	7.8	2.70	1.27	1.43	8.8	7.73	24.0				0.15
5	9901-104	205.Inf.B-5	2/8/99 14:08	2/8/99 14:08		28.84	363	2.05		20.6	7.8										
6	9901-105	205.Inf.B-6	2/10/99 14:00	2/10/99 14:00		30.83	388	1.96	0.029	19.1	7.9	2.40	1.00	1.40	8.8	7.71	24.0				0.10
PreStudy		**EBCT:**	**Carbon Type:**		**Influent pH:**		**Scaling Factor:**														
1	9901-7	Greensboro Settled	1/4/99 8:15	1/4/99 8:15				2.14													
2	9901-8	Greensboro Raw TOC	1/4/99 8:15	1/4/99 8:15				4.13													
3	9901-10	Green.Settled	1/5/99 14:30	1/5/99 14:30				3.27													
4	9901-9	Green.Filtered	1/5/99 14:35	1/5/99 14:35				2.39													
5	9901-14	Green.Set.on.Arrival	1/8/99 10:15	1/8/99 10:15				3.03													
6	9901-13	Green.Filt.on.Arrival	1/8/99 12:15	1/8/99 12:15				2.15													

***Target SDS Chlorination Conditions**

Free Cl2 Residual: 0.80 mg/L **pH:** 7.7 **Temperature:** 8.0 ºC **Holding time:** 24.0 hrs

Study Comments

ND: Non-detect. Blank Results: Either analysis was not performed or result did not meet ICR QC requirements.

Summers & Hooper, Inc.

RSSCT Sampling Summary Report

Study title: ICR RSSCT #4

Client: City of Greensboro **Study#:** 205

#	SamplesID	ClientSampleID	F-S L (days)	TOC (mg/L)	TOX (µg Cl-/L)	Trihalomethanes (µg/L)					Haloacetic Acids (µg/L)											NH3-N (mg/L)	Brom (µg/L)
						CF	BDCM	DBCM	BF	TTHM	MCAA	DCAA	TCAA	MBAA	DBAA	BCAA	BDCAA	DBCAA	TBAA	HAA6	HAA9		
Influent A		**EBCT:**	**Carbon Type:**			**Influent pH:** 7.8			**Scaling Factor:** 12.6														
1	9901-98	205.Inf.A-1	1																			ND	21
2	9901-99	205.Inf.A-2	309																			0.06	
Influent B		**EBCT:**	**Carbon Type:**			**Influent pH:** 7.8			**Scaling Factor:** 12.6														
1	9901-100	205.Inf.B-1	1	2.38	123	15.9	1.3	6.2	ND	**23.4**	ND	8	14	ND	ND	2	3	ND	ND	**24**	**28**		
2	9901-101	205.Inf.B-2	84	2.02																			
3	9901-102	205.Inf.B-3	161	2.06																			
4	9901-103	205.Inf.B-4	286	2.02	120	14.6	1.4	5.9	ND	**21.9**	ND	6	6	ND	ND	2	2	ND	ND	**14**	**15**		
5	9901-104	205.Inf.B-5	363	2.05																			
6	9901-105	205.Inf.B-6	388	1.96	121	13.2	1.2	5.5	ND	**19.9**	ND	7	6	ND	ND	2	2	ND	ND	**15**	**16**		
PreStudy		**EBCT:**	**Carbon Type:**			**Influent pH:**			**Scaling Factor:**														
1	9901-7	Greensboro Settled TOC		2.14																			
2	9901-8	Greensboro Raw TOC		4.13																			
3	9901-10	Green.Settled		3.27																			
4	9901-9	Green.Filtered		2.39																			
5	9901-14	Green.Set.on.Arrival		3.03																			
6	9901-13	Green.Filt.on.Arrival		2.15																			

Summers & Hooper, Inc.

6 Knollcrest Drive
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Phone: (513) 679-2200
Fax: (513) 679-2201

Laboratory Report

Client:

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study Title: ICR RSSCT #1

Study #: 103

Reviewed By: _____

Stuart M. Hooper

Date Reviewed: 7/13/99

Electronic copies of the results and quality control data are available upon request.

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
Phone: (513) 679-2200
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Laboratory Test Results

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: Settled **S&H ID:** 9804-213 **Date Sampled:** 4/13/98 10:45:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1	TOC-ICR TOC	1.60	mg/L	SM 5310 C	1	0.50	4/13/98		4/14/98	7-0-237
2	TOC-ICR TOC (Dupl)	1.73	mg/L	SM 5310 C	1	0.50	4/13/98		4/14/98	7-0-237
		1.67	**mg/L**	**7.8 % RPD**						

Sample ID: Raw **S&H ID:** 9804-214 **Date Sampled:** 4/13/98 10:50:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
3	TOC-ICR TOC	2.76	mg/L	SM 5310 C	1	0.50	4/13/98		4/14/98	7-0-237
4	TOC-ICR TOC (Dupl)	2.86	mg/L	SM 5310 C	1	0.50	4/13/98		4/14/98	7-0-237
		2.81	**mg/L**	**3.6 % RPD**						

Sample ID: Filtered **S&H ID:** 9804-235 **Date Sampled:** 4/14/98 9:10:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
5	TOC-ICR TOC	1.56	mg/L	SM 5310 C	1	0.50	4/14/98		4/22/98	7-0-244
6	TOC-ICR TOC (Dupl)	1.59	mg/L	SM 5310 C	1	0.50	4/14/98		4/22/98	7-0-244
		1.58	**mg/L**	**1.9 % RPD**						

Sample ID: Settled **S&H ID:** 9804-236 **Date Sampled:** 4/14/98 9:15:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
7	TOC-ICR TOC	1.86	mg/L	SM 5310 C	1	0.50	4/14/98		4/22/98	7-0-244
8	TOC-ICR TOC (Dupl)	1.89	mg/L	SM 5310 C	1	0.50	4/14/98		4/22/98	7-0-244
		1.88	**mg/L**	**1.6 % RPD**						

Sample ID: Settled water on arrival **S&H ID:** 9804-320 **Date Sampled:** 4/19/98 10:00:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
9	TOC-ICR TOC	1.58	mg/L	SM 5310 C	1	0.50	4/19/98		4/22/98	7-0-244
10	TOC-ICR TOC (Dupl)	1.58	mg/L	SM 5310 C	1	0.50	4/19/98		4/22/98	7-0-244
		1.58	**mg/L**	**0.0 % RPD**						

Sample ID: Filtered - 1.0 um **S&H ID:** 9804-321 **Date Sampled:** 4/19/98 3:00:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
11	TOC-ICR TOC	1.39	mg/L	SM 5310 C	1	0.50	4/19/98		4/22/98	7-0-244
12	TOC-ICR TOC (Dupl)	1.44	mg/L	SM 5310 C	1	0.50	4/19/98		4/22/98	7-0-244
		1.42	**mg/L**	**3.5 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.INF.A-1 **S&H ID:** 9804-372 **Date Sampled:** 4/22/98 1:00:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
13	ALK	Alkalinity	20	mg/L	SM 2320 B	1	5	4/22/98		4/22/98	1-0-19
14	ALK	Alkalinity (Dupl)	20	mg/L	SM 2320 B	1	5	4/22/98		4/22/98	1-0-19
			20	**mg/L**	**0.0 % RPD**						
15	NH3	Ammonia Nitrogen	ND	mg/L	EPA 350.1	1	0.05	4/22/98		5/7/98	MW77103
16	BR	Bromide	ND	mg/L	EPA 300.0 A	1	0.020	4/22/98		5/11/98	MW77255
17	CaHardM	Calcium Hardness	17	mg/L CaCO3	EPA 200.7	1	5	4/22/98		5/5/98	MW n/a
18	CaMW	Calcium, Total, ICAP	7	mg/L	EPA 200.7	1	1	4/22/98	5/4/98	5/4/98	MW76928
19	MgMW	Magnesium, Total, ICAP	2	mg/L	EPA 200.7	1	0	4/22/98	5/4/98	5/4/98	MW76929
20	TotHard	Total Hardness as CaCO3 by ICP	26	mg/L CaCO3	SM 2340B	1	5	4/22/98		5/5/98	MW n/a

Sample ID: 103.INF.B-1 **S&H ID:** 9804-373 **Date Sampled:** 4/22/98 1:05:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
21	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	4/22/98		4/22/98	n/a
22	TEMP	Temperature	19.0	ºC	SM 2550 B	1	n/a	4/22/98		4/22/98	n/a
23	TOC-ICR	TOC	1.42	mg/L	SM 5310 C	1	0.50	4/22/98		4/22/98	7-0-244
24	TOC-ICR	TOC (Dupl)	1.49	mg/L	SM 5310 C	1	0.50	4/22/98		4/22/98	7-0-244
			1.46	**mg/L**	**4.8 % RPD**						
25	TURB	Turbidity	0.05	ntu	SM 2130 B	1	0.05	4/22/98		4/22/98	9-0-9
26	UV-ICR	UV	0.030	1/cm	SM 5910 B	1	0.009	4/22/98		4/23/98	8-0-169
27	UV-ICR	UV (Dupl)	0.030	1/cm	SM 5910 B	1	0.009	4/22/98		4/23/98	8-0-169
			0.030	**1/cm**	**0.0 % RPD**						

Sample ID: 103.10.Eff-1 **S&H ID:** 9804-385 **Date Sampled:** 4/22/98 7:56:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
28	Cl2Dose	Chlorine Dose	1.20	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/25/98		4/25/98	n/a
29	Cl2Res	Chlorine Residual	1.05	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/25/98		4/25/98	n/a
30	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	107.2	%	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
31	HAA-ICR	2-Bromopropionic acid (Surrogate)	93.6	%	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
32	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
33	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
34	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/25/98	5/4/98	5/5/98	0-121-0
35	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
36	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

37	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
38	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/25/98	5/4/98	5/5/98	0-121-0
39	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	4/25/98	5/4/98	5/5/98	0-121-0
40	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
41	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/25/98		4/25/98	n/a
42	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/25/98		4/25/98	n/a
43	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	4/22/98		4/22/98	n/a
44	TEMP	Cl2 Temperature	17.4	ºC	SM 2550 B	1	n/a	4/25/98		4/25/98	n/a
45	TEMP	Temperature	21.9	ºC	SM 2550 B	1	n/a	4/22/98		4/22/98	n/a
46	TIME	Cl2 Incubation Time	6.1	hrs	n/a	1	n/a	4/25/98		4/25/98	n/a
47	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	4/22/98		4/23/98	7-0-245
48	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	4/22/98		4/23/98	7-0-245
			ND	**mg/L**							
49	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	4/25/98		4/30/98	12-0-126
50	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	4/25/98		4/30/98	12-0-126
			ND	**µg Cl-/L**							
51	THM-ICR	1,2,3-Trichloropropane (Surrogate)	87.2	%	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
52	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
53	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
54	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
55	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
56	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/22/98		4/23/98	8-0-169
57	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/22/98		4/23/98	8-0-169
			ND	**1/cm**							

Sample ID: 103.20.Eff-1 **S&H ID:** 9804-386 **Date Sampled:** 4/22/98 7:25:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
58	Cl2Dose	Chlorine Dose	1.20	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/25/98		4/25/98	n/a
59	Cl2Res	Chlorine Residual	1.05	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/25/98		4/25/98	n/a
60	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.4	%	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
61	HAA-ICR	2-Bromopropionic acid (Surrogate)	91.2	%	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
62	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
63	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
64	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/25/98	5/4/98	5/5/98	0-121-0
65	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
66	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
67	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
68	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/25/98	5/4/98	5/5/98	0-121-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

69	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	4/25/98	5/4/98	5/5/98	0-121-0
70	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/25/98	5/4/98	5/5/98	0-121-0
71	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/25/98		4/25/98	n/a
72	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/25/98		4/25/98	n/a
73	pH	pH	7.9	Unit	SM 4500-H+ B	1	n/a	4/22/98		4/22/98	n/a
74	TEMP	Cl2 Temperature	17.4	ºC	SM 2550 B	1	n/a	4/25/98		4/25/98	n/a
75	TEMP	Temperature	21.3	ºC	SM 2550 B	1	n/a	4/22/98		4/22/98	n/a
76	TIME	Cl2 Incubation Time	6.1	hrs	n/a	1	n/a	4/25/98		4/25/98	n/a
77	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	4/22/98		4/23/98	7-0-245
78	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	4/22/98		4/23/98	7-0-245
			ND	**mg/L**							
79	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	4/25/98		4/30/98	12-0-126
80	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	4/25/98		4/30/98	12-0-126
			ND	**µg Cl-/L**							
81	THM-ICR	1,2,3-Trichloropropane (Surrogate)	88.4	%	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
82	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
83	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
84	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
85	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	4/25/98	4/30/98	5/1/98	0-120-0
86	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/22/98		4/23/98	8-0-169
87	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/22/98		4/23/98	8-0-169
			ND	**1/cm**							

Sample ID: 103.10.Eff-7 **S&H ID:** 9804-419 **Date Sampled:** 4/25/98 5:44:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
88	Cl2Dose	Chlorine Dose	1.29	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/28/98		4/28/98	n/a
89	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/28/98		4/29/98	n/a
90	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.0	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
91	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
92	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
93	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
94	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
95	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
96	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
97	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
98	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
99	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	4/29/98	5/7/98	5/8/98	0-123-0
100	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

101	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/29/98	n/a
102	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/28/98	n/a
103	pH	pH	7.5	Unit	SM 4500-H+ B	1	n/a	4/25/98		4/25/98	n/a
104	TEMP	Cl2 Temperature	17.6	ºC	SM 2550 B	1	n/a	4/28/98		4/29/98	n/a
105	TEMP	Temperature	22.5	ºC	SM 2550 B	1	n/a	4/25/98		4/25/98	n/a
106	TIME	Cl2 Incubation Time	23.8	hrs	n/a	1	n/a	4/28/98		4/29/98	n/a
107	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	4/25/98		4/26/98	7-0-247
108	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	4/25/98		4/26/98	7-0-247
			ND	**mg/L**							
109	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/6/98	12-0-127
110	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/6/98	12-0-127
			ND	**µg Cl-/L**							
111	THM-ICR	1,2,3-Trichloropropane (Surrogate)	93.2	%	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
112	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
113	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
114	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
115	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
116	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/25/98		4/26/98	8-0-171
117	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/25/98		4/26/98	8-0-171
			ND	**1/cm**							

Sample ID: 103.10.Eff-9 **S&H ID:** 9804-428 **Date Sampled:** 4/26/98 7:55:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
118	Cl2Dose	Chlorine Dose	1.28	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/28/98		4/28/98	n/a
119	Cl2Res	Chlorine Residual	0.78	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/28/98		4/29/98	n/a
120	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.4	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
121	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
122	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
123	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
124	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
125	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
126	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
127	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
128	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
129	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	4/29/98	5/7/98	5/8/98	0-123-0
130	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
131	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/29/98	n/a
132	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/28/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

133	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	4/26/98		4/26/98	n/a
134	TEMP	Cl2 Temperature	17.6	ºC	SM 2550 B	1	n/a	4/28/98		4/29/98	n/a
135	TEMP	Temperature	21.7	ºC	SM 2550 B	1	n/a	4/26/98		4/26/98	n/a
136	TIME	Cl2 Incubation Time	23.8	hrs	n/a	1	n/a	4/28/98		4/29/98	n/a
137	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	4/26/98		4/26/98	7-0-247
138	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	4/26/98		4/26/98	7-0-247
			ND	**mg/L**							
139	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/6/98	12-0-127
140	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/6/98	12-0-127
			ND	**µg Cl-/L**							
141	THM-ICR	1,2,3-Trichloropropane (Surrogate)	101.2	%	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
142	THM-ICR	Bromodichloromethane	1.0	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
143	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
144	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
145	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
146	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/26/98		4/27/98	8-0-172
147	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/26/98		4/27/98	8-0-172
			ND	**1/cm**							

Sample ID: 103.10.Eff-10 **S&H ID:** 9804-431 **Date Sampled:** 4/26/98 2:52:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
148	Cl2Dose	Chlorine Dose	1.36	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/28/98		4/28/98	n/a
149	Cl2Res	Chlorine Residual	0.87	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/28/98		4/29/98	n/a
150	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.8	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
151	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.8	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
152	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
153	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
154	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
155	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
156	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
157	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
158	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
159	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	4/29/98	5/7/98	5/8/98	0-123-0
160	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
161	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/29/98	n/a
162	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/28/98	n/a
163	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	4/26/98		4/26/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

164	TEMP	Cl2 Temperature	17.6	ºC	SM 2550 B	1	n/a	4/28/98		4/29/98	n/a
165	TEMP	Temperature	22.1	ºC	SM 2550 B	1	n/a	4/26/98		4/26/98	n/a
166	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	4/28/98		4/29/98	n/a
167	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	4/26/98		4/27/98	7-0-248
168	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	4/26/98		4/27/98	7-0-248
			ND	**mg/L**							
169	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/7/98	12-0-128
170	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/7/98	12-0-128
			ND	**µg Cl-/L**							
171	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.0	%	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
172	THM-ICR	Bromodichloromethane	1.4	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
173	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
174	THM-ICR	Chloroform	1.3	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
175	THM-ICR	Dibromochloromethane	1.0	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
176	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/26/98		4/27/98	8-0-172
177	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/26/98		4/27/98	8-0-172
			ND	**1/cm**							

Sample ID: 103.10.Eff-10d **S&H ID:** 9804-432 **Date Sampled:** 4/26/98 2:52:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
178	Cl2Dose	Chlorine Dose	1.37	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/28/98		4/28/98	n/a
179	Cl2Res	Chlorine Residual	0.90	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/28/98		4/29/98	n/a
180	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	96.8	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
181	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.0	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
182	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
183	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
184	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
185	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
186	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
187	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
188	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
189	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	4/29/98	5/7/98	5/8/98	0-123-0
190	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
191	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/29/98	n/a
192	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/28/98	n/a
193	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	4/26/98		4/26/98	n/a
194	TEMP	Cl2 Temperature	17.6	ºC	SM 2550 B	1	n/a	4/28/98		4/29/98	n/a
195	TEMP	Temperature	22.1	ºC	SM 2550 B	1	n/a	4/26/98		4/26/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

196	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	4/28/98		4/29/98	n/a
197	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	4/26/98		4/27/98	7-0-248
198	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	4/26/98		4/27/98	7-0-248
			ND	**mg/L**							
199	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/7/98	12-0-128
200	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/7/98	12-0-128
			ND	**µg Cl-/L**							
201	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.0	%	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
202	THM-ICR	Bromodichloromethane	1.4	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
203	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
204	THM-ICR	Chloroform	1.4	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
205	THM-ICR	Dibromochloromethane	1.0	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
206	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/26/98		4/27/98	8-0-172
207	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/26/98		4/27/98	8-0-172
			ND	**1/cm**							

Sample ID: 103.10.Eff-12 **S&H ID:** 9804-446 **Date Sampled:** 4/27/98 4:52:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
208	Cl2Dose	Chlorine Dose	1.51	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/30/98		4/30/98	n/a
209	Cl2Res	Chlorine Residual	1.10	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/30/98		5/1/98	n/a
210	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.4	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
211	HAA-ICR	2-Bromopropionic acid (Surrogate)	102.4	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
212	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
213	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
214	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/8/98	0-123-0
215	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
216	HAA-ICR	Dichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
217	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
218	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/8/98	0-123-0
219	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/1/98	5/7/98	5/8/98	0-123-0
220	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
221	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		5/1/98	n/a
222	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		4/30/98	n/a
223	pH	pH	6.8	Unit	SM 4500-H+ B	1	n/a	4/27/98		4/27/98	n/a
224	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	4/30/98		5/1/98	n/a
225	TEMP	Temperature	21.5	ºC	SM 2550 B	1	n/a	4/27/98		4/27/98	n/a
226	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	4/30/98		5/1/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

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Study Title: ICR RSSCT #1

227	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	4/27/98		4/27/98	7-0-248
228	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	4/27/98		4/27/98	7-0-248
			ND	**mg/L**							
229	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/6/98	12-0-127
230	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/6/98	12-0-127
			ND	**µg Cl-/L**							
231	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.8	%	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
232	THM-ICR	Bromodichloromethane	2.0	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
233	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
234	THM-ICR	Chloroform	2.1	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
235	THM-ICR	Dibromochloromethane	1.2	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
236	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/27/98		4/27/98	8-0-172
237	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/27/98		4/27/98	8-0-172
			ND	**1/cm**							

Sample ID: 103.10.Eff-13 **S&H ID:** 9804-452 **Date Sampled:** 4/27/98 11:59:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
238	Cl2Dose	Chlorine Dose	1.56	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/30/98		4/30/98	n/a
239	Cl2Res	Chlorine Residual	1.15	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/30/98		5/1/98	n/a
240	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	106.8	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
241	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.0	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
242	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
243	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
244	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/8/98	0-123-0
245	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
246	HAA-ICR	Dichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
247	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
248	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/8/98	0-123-0
249	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/1/98	5/7/98	5/8/98	0-123-0
250	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
251	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		5/1/98	n/a
252	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		4/30/98	n/a
253	pH	pH	7.3	Unit	SM 4500-H+ B	1	n/a	4/27/98		4/27/98	n/a
254	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	4/30/98		5/1/98	n/a
255	TEMP	Temperature	21.4	ºC	SM 2550 B	1	n/a	4/27/98		4/27/98	n/a
256	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	4/30/98		5/1/98	n/a
257	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	4/27/98		4/27/98	7-0-248
258	TOC-ICR	TOC (Dupl)	0.54	mg/L	SM 5310 C	1	0.50	4/27/98		4/27/98	7-0-248

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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Study Title: ICR RSSCT #1

			0.51	**mg/L**	**11.8 % RPD**						
259	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/6/98	12-0-127
260	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/6/98	12-0-127
			ND	**µg Cl-/L**							
261	THM-ICR	1,2,3-Trichloropropane (Surrogate)	98.4	%	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
262	THM-ICR	Bromodichloromethane	2.3	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
263	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
264	THM-ICR	Chloroform	2.6	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
265	THM-ICR	Dibromochloromethane	1.3	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
266	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/27/98		4/29/98	8-0-173
267	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/27/98		4/29/98	8-0-173
			ND	**1/cm**							

Sample ID: 103.INF.B-2 **S&H ID:** 9804-453 **Date Sampled:** 4/27/98 1:25:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
268	Cl2Dose	Chlorine Dose	2.12	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/28/98		4/28/98	n/a
269	Cl2Res	Chlorine Residual	0.76	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/28/98		4/29/98	n/a
270	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	99.6	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
271	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard) (Lab Dupl)	100.4	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
			100.0	**%**	**0.8 % RPD**						
272	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.6	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
273	HAA-ICR	2-Bromopropionic acid (Surrogate) (Lab Dupl)	99.6	%	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
			99.6	**%**	**0.0 % RPD**						
274	HAA-ICR	Bromochloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
275	HAA-ICR	Bromochloroacetic acid (Lab Dupl)	1.6	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
			1.6	**µg/L**	**6.2 % RPD**						
276	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
277	HAA-ICR	Bromodichloroacetic acid (Lab Dupl)	1.5	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
			1.5	**µg/L**	**0.0 % RPD**						
278	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
279	HAA-ICR	Chlorodibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
			ND	**µg/L**							
280	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
281	HAA-ICR	Dibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
			ND	**µg/L**							
282	HAA-ICR	Dichloroacetic acid	8.9	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
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Study Title: ICR RSSCT #1

283	HAA-ICR	Dichloroacetic acid (Lab Dupl)	9.2	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
			9.1	**µg/L**	**3.3 % RPD**						
284	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
285	HAA-ICR	Monobromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
			ND	**µg/L**							
286	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
287	HAA-ICR	Monochloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	4/29/98	5/7/98	5/8/98	0-123-0
			ND	**µg/L**							
288	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	4/29/98	5/7/98	5/8/98	0-123-0
289	HAA-ICR	Tribromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	4.0	4/29/98	5/7/98	5/8/98	0-123-0
			ND	**µg/L**							
290	HAA-ICR	Trichloroacetic acid	6.8	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
291	HAA-ICR	Trichloroacetic acid (Lab Dupl)	7.0	µg/L	EPA 552.2	1	1.0	4/29/98	5/7/98	5/8/98	0-123-0
			6.9	**µg/L**	**2.9 % RPD**						
292	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/29/98	n/a
293	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	4/28/98		4/28/98	n/a
294	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	4/27/98		4/27/98	n/a
295	TEMP	Cl2 Temperature	17.6	ºC	SM 2550 B	1	n/a	4/28/98		4/29/98	n/a
296	TEMP	Temperature	14.7	ºC	SM 2550 B	1	n/a	4/27/98		4/27/98	n/a
297	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	4/28/98		4/29/98	n/a
298	TOC-ICR	TOC	1.56	mg/L	SM 5310 C	1	0.50	4/27/98		4/27/98	7-0-248
299	TOC-ICR	TOC (Dupl)	1.60	mg/L	SM 5310 C	1	0.50	4/27/98		4/27/98	7-0-248
			1.58	**mg/L**	**2.5 % RPD**						
300	TOX-ICR	TOX	120	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/6/98	12-0-127
301	TOX-ICR	TOX (Dupl)	126	µg Cl-/L	SM 5320 B	1	25	4/29/98		5/6/98	12-0-127
			123	**µg Cl-/L**	**4.9 % RPD**						
302	THM-ICR	1,2,3-Trichloropropane (Surrogate)	103.6	%	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
303	THM-ICR	Bromodichloromethane	6.5	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
304	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
305	THM-ICR	Chloroform	23.1	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
306	THM-ICR	Dibromochloromethane	1.0	µg/L	EPA 551.1	1	1.0	4/29/98	5/5/98	5/5/98	0-122-0
307	TURB	Turbidity	0.10	ntu	SM 2130 B	1	0.05	4/27/98		4/27/98	9-0-10
308	UV-ICR	UV	0.030	1/cm	SM 5910 B	1	0.009	4/27/98		4/27/98	8-0-172
309	UV-ICR	UV (Dupl)	0.030	1/cm	SM 5910 B	1	0.009	4/27/98		4/27/98	8-0-172
			0.030	**1/cm**	**0.0 % RPD**						

Sample ID: 103.10.Eff-14 **S&H ID:** 9804-456 **Date Sampled:** 4/27/98 3:37:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
310	Cl2Dose	Chlorine Dose	1.61	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/30/98		4/30/98	n/a
311	Cl2Res	Chlorine Residual	1.18	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/30/98		5/1/98	n/a
312	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.4	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
313	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.8	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
314	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
315	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
316	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/8/98	0-123-0
317	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
318	HAA-ICR	Dichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
319	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
320	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/8/98	0-123-0
321	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/1/98	5/7/98	5/8/98	0-123-0
322	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/8/98	0-123-0
323	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		5/1/98	n/a
324	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		4/30/98	n/a
325	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	4/27/98		4/27/98	n/a
326	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	4/30/98		5/1/98	n/a
327	TEMP	Temperature	22.3	ºC	SM 2550 B	1	n/a	4/27/98		4/27/98	n/a
328	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	4/30/98		5/1/98	n/a
329	TOC-ICR	TOC	0.54	mg/L	SM 5310 C	1	0.50	4/27/98		4/27/98	7-0-248
330	TOC-ICR	TOC (Dupl)	0.59	mg/L	SM 5310 C	1	0.50	4/27/98		4/27/98	7-0-248
			0.56	**mg/L**	**8.9 % RPD**						
331	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/7/98	12-0-128
332	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/7/98	12-0-128
			ND	**µg Cl-/L**							
333	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.4	%	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
334	THM-ICR	Bromodichloromethane	2.6	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
335	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
336	THM-ICR	Chloroform	3.0	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
337	THM-ICR	Dibromochloromethane	1.4	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
338	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	4/27/98		4/29/98	8-0-173
339	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	4/27/98		4/29/98	8-0-173
			ND	**1/cm**							

Sample ID: 103.10.Eff-18 **S&H ID:** 9804-482 **Date Sampled:** 4/29/98 2:44:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
340	Cl2Dose	Chlorine Dose	1.70	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/30/98		4/30/98	n/a
341	Cl2Res	Chlorine Residual	1.19	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/30/98		5/1/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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Study Title: ICR RSSCT #1

342	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	106.0	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
343	HAA-ICR	2-Bromopropionic acid (Surrogate)	102.0	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
344	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
345	HAA-ICR	Bromodichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
346	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/9/98	0-123-0
347	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
348	HAA-ICR	Dichloroacetic acid	3.0	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
349	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
350	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/9/98	0-123-0
351	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/1/98	5/7/98	5/9/98	0-123-0
352	HAA-ICR	Trichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
353	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		5/1/98	n/a
354	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		4/30/98	n/a
355	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	4/29/98		4/29/98	n/a
356	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	4/30/98		5/1/98	n/a
357	TEMP	Temperature	22.2	ºC	SM 2550 B	1	n/a	4/29/98		4/29/98	n/a
358	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	4/30/98		5/1/98	n/a
359	TOC-ICR	TOC	0.68	mg/L	SM 5310 C	1	0.50	4/29/98		4/29/98	7-0-250
360	TOC-ICR	TOC (Dupl)	0.70	mg/L	SM 5310 C	1	0.50	4/29/98		4/29/98	7-0-250
			0.69	**mg/L**	**2.9 % RPD**						
361	TOX-ICR	TOX	38	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/7/98	12-0-128
362	TOX-ICR	TOX (Dupl)	38	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/7/98	12-0-128
			38	**µg Cl-/L**	**0.0 % RPD**						
363	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.0	%	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
364	THM-ICR	Bromodichloromethane	3.7	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
365	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
366	THM-ICR	Chloroform	5.5	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
367	THM-ICR	Dibromochloromethane	1.6	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/5/98	0-122-0
368	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	4/29/98		4/29/98	8-0-173
369	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	4/29/98		4/29/98	8-0-173
			0.009	**1/cm**	**0.0 % RPD**						

Sample ID: 103.10.Eff-18d **S&H ID:** 9804-483 **Date Sampled:** 4/29/98 2:44:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
370	Cl2Dose	Chlorine Dose	1.70	mg/L as Cl2	SM 4500-Cl B	1	n/a	4/30/98		4/30/98	n/a
371	Cl2Res	Chlorine Residual	1.11	mg/L as Cl2	SM 4500-Cl F	1	0.10	4/30/98		5/1/98	n/a
372	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	96.8	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

373	HAA-ICR	2-Bromopropionic acid (Surrogate)	101.2	%	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
374	HAA-ICR	Bromochloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
375	HAA-ICR	Bromodichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
376	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/9/98	0-123-0
377	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
378	HAA-ICR	Dichloroacetic acid	3.2	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
379	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
380	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/1/98	5/7/98	5/9/98	0-123-0
381	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/1/98	5/7/98	5/9/98	0-123-0
382	HAA-ICR	Trichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	5/1/98	5/7/98	5/9/98	0-123-0
383	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		5/1/98	n/a
384	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		4/30/98	n/a
385	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	4/29/98		4/29/98	n/a
386	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	4/30/98		5/1/98	n/a
387	TEMP	Temperature	22.2	ºC	SM 2550 B	1	n/a	4/29/98		4/29/98	n/a
388	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	4/30/98		5/1/98	n/a
389	TOC-ICR	TOC	0.67	mg/L	SM 5310 C	1	0.50	4/29/98		4/29/98	7-0-250
390	TOC-ICR	TOC (Dupl)	0.70	mg/L	SM 5310 C	1	0.50	4/29/98		4/29/98	7-0-250
			0.69	**mg/L**	**4.3 % RPD**						
391	TOX-ICR	TOX	41	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/8/98	12-0-129
392	TOX-ICR	TOX (Dupl)	42	µg Cl-/L	SM 5320 B	1	25	5/1/98		5/8/98	12-0-129
			42	**µg Cl-/L**	**2.4 % RPD**						
393	THM-ICR	1,2,3-Trichloropropane (Surrogate)	99.2	%	EPA 551.1	1	1.0	5/1/98	5/5/98	5/6/98	0-122-0
394	THM-ICR	Bromodichloromethane	4.0	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/6/98	0-122-0
395	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/6/98	0-122-0
396	THM-ICR	Chloroform	5.8	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/6/98	0-122-0
397	THM-ICR	Dibromochloromethane	1.7	µg/L	EPA 551.1	1	1.0	5/1/98	5/5/98	5/6/98	0-122-0
398	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	4/29/98		4/29/98	8-0-173
399	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	4/29/98		4/29/98	8-0-173
			0.009	**1/cm**	**0.0 % RPD**						

Sample ID: 103.10.Eff-20 **S&H ID:** 9804-508 **Date Sampled:** 4/30/98 6:57:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
400	Cl2Dose	Chlorine Dose	1.71	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/4/98		5/4/98	n/a
401	Cl2Res	Chlorine Residual	1.14	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/4/98		5/5/98	n/a
402	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	107.2	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
403	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.4	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

404	HAA-ICR	Bromochloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
405	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
406	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
407	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
408	HAA-ICR	Dichloroacetic acid	3.3	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
409	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
410	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
411	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/5/98	5/12/98	5/13/98	0-127-0
412	HAA-ICR	Trichloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
413	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/5/98	n/a
414	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
415	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	4/30/98		4/30/98	n/a
416	TEMP	Cl2 Temperature	16.8	ºC	SM 2550 B	1	n/a	5/4/98		5/5/98	n/a
417	TEMP	Temperature	21.7	ºC	SM 2550 B	1	n/a	4/30/98		4/30/98	n/a
418	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	5/4/98		5/5/98	n/a
419	TOC-ICR	TOC	0.78	mg/L	SM 5310 C	1	0.50	4/30/98		4/30/98	7-0-251
420	TOC-ICR	TOC (Dupl)	0.80	mg/L	SM 5310 C	1	0.50	4/30/98		4/30/98	7-0-251
			0.79	**mg/L**	**2.5 % RPD**						
421	TOX-ICR	TOX	44	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/13/98	12-0-132
422	TOX-ICR	TOX (Dupl)	46	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/13/98	12-0-132
			45	**µg Cl-/L**	**4.4 % RPD**						
423	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.4	%	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
424	THM-ICR	Bromodichloromethane	4.2	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
425	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
426	THM-ICR	Chloroform	7.0	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
427	THM-ICR	Dibromochloromethane	1.7	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
428	UV-ICR	UV	0.011	1/cm	SM 5910 B	1	0.009	4/30/98		5/1/98	8-0-174
429	UV-ICR	UV (Dupl)	0.011	1/cm	SM 5910 B	1	0.009	4/30/98		5/1/98	8-0-174
			0.011	**1/cm**	**0.0 % RPD**						

Sample ID: 103.INF.B-3 **S&H ID:** 9804-520 **Date Sampled:** 4/30/98 1:43:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
430	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	4/30/98		4/30/98	n/a
431	TEMP	Temperature	15.4	ºC	SM 2550 B	1	n/a	4/30/98		4/30/98	n/a
432	TOC-ICR	TOC	1.41	mg/L	SM 5310 C	1	0.50	4/30/98		4/30/98	7-0-251
433	TOC-ICR	TOC (Dupl)	1.47	mg/L	SM 5310 C	1	0.50	4/30/98		4/30/98	7-0-251
			1.44	**mg/L**	**4.2 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.10.Eff-21 **S&H ID:** 9805-9 **Date Sampled:** 5/1/98 4:14:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
434	Cl2Dose	Chlorine Dose	1.77	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/4/98		5/4/98	n/a
435	Cl2Res	Chlorine Residual	1.16	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/4/98		5/5/98	n/a
436	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	93.2	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
437	HAA-ICR	2-Bromopropionic acid (Surrogate)	102.4	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
438	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
439	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
440	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
441	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
442	HAA-ICR	Dichloroacetic acid	3.9	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
443	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
444	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
445	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/5/98	5/12/98	5/13/98	0-127-0
446	HAA-ICR	Trichloroacetic acid	2.7	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
447	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/5/98	n/a
448	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
449	pH	pH	7.9	Unit	SM 4500-H+ B	1	n/a	5/1/98		5/1/98	n/a
450	TEMP	Cl2 Temperature	16.8	ºC	SM 2550 B	1	n/a	5/4/98		5/5/98	n/a
451	TEMP	Temperature	22.3	ºC	SM 2550 B	1	n/a	5/1/98		5/1/98	n/a
452	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	5/4/98		5/5/98	n/a
453	TOC-ICR	TOC	0.88	mg/L	SM 5310 C	1	0.50	5/1/98		5/1/98	7-0-252
454	TOC-ICR	TOC (Dupl)	0.88	mg/L	SM 5310 C	1	0.50	5/1/98		5/1/98	7-0-252
			0.88	**mg/L**	**0.0 % RPD**						
455	TOX-ICR	TOX	52	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/13/98	12-0-132
456	TOX-ICR	TOX (Dupl)	52	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/13/98	12-0-132
			52	**µg Cl-/L**	**0.0 % RPD**						
457	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.8	%	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
458	THM-ICR	Bromodichloromethane	5.2	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
459	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
460	THM-ICR	Chloroform	8.5	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
461	THM-ICR	Dibromochloromethane	1.7	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
462	UV-ICR	UV	0.014	1/cm	SM 5910 B	1	0.009	5/1/98		5/1/98	8-0-174
463	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	5/1/98		5/1/98	8-0-174
			0.014	**1/cm**	**7.1 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.20.Eff-9 **S&H ID:** 9805-11 **Date Sampled:** 5/1/98 8:19:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
464	Cl2Dose	Chlorine Dose	1.26	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/4/98		5/4/98	n/a
465	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/4/98		5/5/98	n/a
466	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.8	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
467	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.0	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
468	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
469	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
470	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
471	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
472	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
473	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
474	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
475	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/5/98	5/12/98	5/13/98	0-127-0
476	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
477	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/5/98	n/a
478	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
479	pH	pH	7.5	Unit	SM 4500-H+ B	1	n/a	5/1/98		5/1/98	n/a
480	TEMP	Cl2 Temperature	16.8	ºC	SM 2550 B	1	n/a	5/4/98		5/5/98	n/a
481	TEMP	Temperature	21.6	ºC	SM 2550 B	1	n/a	5/1/98		5/1/98	n/a
482	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	5/4/98		5/5/98	n/a
483	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	5/1/98		5/1/98	7-0-252
484	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	5/1/98		5/1/98	7-0-252
			ND	**mg/L**							
485	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/14/98	12-0-133
486	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/14/98	12-0-133
			ND	**µg Cl-/L**							
487	THM-ICR	1,2,3-Trichloropropane (Surrogate)	101.2	%	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
488	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
489	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
490	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
491	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
492	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	5/1/98		5/1/98	8-0-174
493	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	5/1/98		5/1/98	8-0-174
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.10.Eff-24 **S&H ID:** 9805-54 **Date Sampled:** 5/2/98 3:27:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
494	Cl2Dose	Chlorine Dose	1.83	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/4/98		5/4/98	n/a
495	Cl2Res	Chlorine Residual	1.18	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/4/98		5/5/98	n/a
496	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.0	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
497	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.4	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
498	HAA-ICR	Bromochloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
499	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
500	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
501	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
502	HAA-ICR	Dichloroacetic acid	4.2	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
503	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
504	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
505	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/5/98	5/12/98	5/13/98	0-127-0
506	HAA-ICR	Trichloroacetic acid	3.2	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
507	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/5/98	n/a
508	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
509	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	5/2/98		5/2/98	n/a
510	TEMP	Cl2 Temperature	16.8	ºC	SM 2550 B	1	n/a	5/4/98		5/5/98	n/a
511	TEMP	Temperature	22.7	ºC	SM 2550 B	1	n/a	5/2/98		5/2/98	n/a
512	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	5/4/98		5/5/98	n/a
513	TOC-ICR	TOC	0.96	mg/L	SM 5310 C	1	0.50	5/2/98		5/2/98	7-0-253
514	TOC-ICR	TOC (Dupl)	0.95	mg/L	SM 5310 C	1	0.50	5/2/98		5/2/98	7-0-253
			0.95	**mg/L**	**1.1 % RPD**						
515	TOX-ICR	TOX	62	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/13/98	12-0-132
516	TOX-ICR	TOX (Dupl)	61	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/13/98	12-0-132
			62	**µg Cl-/L**	**1.6 % RPD**						
517	THM-ICR	1,2,3-Trichloropropane (Surrogate)	97.2	%	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
518	THM-ICR	Bromodichloromethane	4.9	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
519	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
520	THM-ICR	Chloroform	9.1	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
521	THM-ICR	Dibromochloromethane	1.6	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
522	UV-ICR	UV	0.014	1/cm	SM 5910 B	1	0.009	5/2/98		5/3/98	8-0-176
523	UV-ICR	UV (Dupl)	0.014	1/cm	SM 5910 B	1	0.009	5/2/98		5/3/98	8-0-176
			0.014	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.10.Eff-24d **S&H ID:** 9805-55 **Date Sampled:** 5/2/98 3:27:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
524	Cl2Dose	Chlorine Dose	1.86	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/4/98		5/4/98	n/a
525	Cl2Res	Chlorine Residual	1.19	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/4/98		5/5/98	n/a
526	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	99.6	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
527	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
528	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
529	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
530	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
531	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
532	HAA-ICR	Dichloroacetic acid	4.1	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
533	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
534	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
535	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/5/98	5/12/98	5/13/98	0-127-0
536	HAA-ICR	Trichloroacetic acid	3.2	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
537	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/5/98	n/a
538	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
539	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	5/2/98		5/2/98	n/a
540	TEMP	Cl2 Temperature	16.8	ºC	SM 2550 B	1	n/a	5/4/98		5/5/98	n/a
541	TEMP	Temperature	22.7	ºC	SM 2550 B	1	n/a	5/2/98		5/2/98	n/a
542	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	5/4/98		5/5/98	n/a
543	TOC-ICR	TOC	0.99	mg/L	SM 5310 C	1	0.50	5/2/98		5/2/98	7-0-253
544	TOC-ICR	TOC (Dupl)	0.99	mg/L	SM 5310 C	1	0.50	5/2/98		5/3/98	7-0-253
			0.99	**mg/L**	**0.0 % RPD**						
545	TOX-ICR	TOX	55	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/13/98	12-0-132
546	TOX-ICR	TOX (Dupl)	60	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/13/98	12-0-132
			58	**µg Cl-/L**	**8.6 % RPD**						
547	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.4	%	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
548	THM-ICR	Bromodichloromethane	5.1	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
549	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
550	THM-ICR	Chloroform	9.2	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
551	THM-ICR	Dibromochloromethane	1.6	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
552	UV-ICR	UV	0.013	1/cm	SM 5910 B	1	0.009	5/2/98		5/3/98	8-0-176
553	UV-ICR	UV (Dupl)	0.014	1/cm	SM 5910 B	1	0.009	5/2/98		5/3/98	8-0-176
			0.014	**1/cm**	**7.1 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.20.Eff-13 **S&H ID:** 9805-57 **Date Sampled:** 5/2/98 4:59:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
554	Cl2Dose	Chlorine Dose	1.33	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/4/98		5/4/98	n/a
555	Cl2Res	Chlorine Residual	1.06	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/4/98		5/5/98	n/a
556	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	105.2	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
557	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.0	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
558	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
559	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
560	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
561	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
562	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
563	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
564	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
565	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/5/98	5/12/98	5/13/98	0-127-0
566	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
567	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/5/98	n/a
568	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
569	pH	pH	7.5	Unit	SM 4500-H+ B	1	n/a	5/2/98		5/2/98	n/a
570	TEMP	Cl2 Temperature	16.8	ºC	SM 2550 B	1	n/a	5/4/98		5/5/98	n/a
571	TEMP	Temperature	22.2	ºC	SM 2550 B	1	n/a	5/2/98		5/2/98	n/a
572	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/4/98		5/5/98	n/a
573	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	5/2/98		5/2/98	7-0-253
574	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	5/2/98		5/2/98	7-0-253
			ND	**mg/L**							
575	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/14/98	12-0-133
576	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/14/98	12-0-133
			ND	**µg Cl-/L**							
577	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.4	%	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
578	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
579	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
580	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
581	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
582	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	5/2/98		5/3/98	8-0-177
583	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	5/2/98		5/3/98	8-0-177
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.20.Eff-14 **S&H ID:** 9805-67 **Date Sampled:** 5/3/98 6:05:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
584	Cl2Dose	Chlorine Dose	1.41	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/4/98		5/4/98	n/a
585	Cl2Res	Chlorine Residual	1.08	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/4/98		5/5/98	n/a
586	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	113.2	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
587	HAA-ICR	2-Bromopropionic acid (Surrogate)	94.4	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
588	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
589	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
590	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
591	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
592	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
593	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
594	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
595	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/5/98	5/12/98	5/13/98	0-127-0
596	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
597	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/5/98	n/a
598	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
599	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/3/98		5/3/98	n/a
600	TEMP	Cl2 Temperature	16.8	ºC	SM 2550 B	1	n/a	5/4/98		5/5/98	n/a
601	TEMP	Temperature	21.7	ºC	SM 2550 B	1	n/a	5/3/98		5/3/98	n/a
602	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/4/98		5/5/98	n/a
603	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	5/3/98		5/3/98	7-0-255
604	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	5/3/98		5/3/98	7-0-255
			ND	**mg/L**							
605	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/14/98	12-0-133
606	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/14/98	12-0-133
			ND	**µg Cl-/L**							
607	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.0	%	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
608	THM-ICR	Bromodichloromethane	1.3	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
609	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
610	THM-ICR	Chloroform	1.1	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
611	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
612	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	5/3/98		5/3/98	8-0-177
613	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	5/3/98		5/3/98	8-0-177
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.20.Eff-14d **S&H ID:** 9805-68 **Date Sampled:** 5/3/98 6:05:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
614	Cl2Dose	Chlorine Dose	1.40	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/4/98		5/4/98	n/a
615	Cl2Res	Chlorine Residual	1.08	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/4/98		5/5/98	n/a
616	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	112.0	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
617	HAA-ICR	2-Bromopropionic acid (Surrogate)	94.8	%	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
618	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
619	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
620	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
621	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
622	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
623	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
624	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/5/98	5/12/98	5/13/98	0-127-0
625	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/5/98	5/12/98	5/13/98	0-127-0
626	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/5/98	5/12/98	5/13/98	0-127-0
627	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/5/98	n/a
628	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
629	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/3/98		5/3/98	n/a
630	TEMP	Cl2 Temperature	16.8	ºC	SM 2550 B	1	n/a	5/4/98		5/5/98	n/a
631	TEMP	Temperature	21.7	ºC	SM 2550 B	1	n/a	5/3/98		5/3/98	n/a
632	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/4/98		5/5/98	n/a
633	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	5/3/98		5/3/98	7-0-255
634	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	5/3/98		5/3/98	7-0-255
			ND	**mg/L**							
635	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/14/98	12-0-133
636	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/5/98		5/14/98	12-0-133
			ND	**µg Cl-/L**							
637	THM-ICR	1,2,3-Trichloropropane (Surrogate)	98.4	%	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
638	THM-ICR	Bromodichloromethane	1.3	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
639	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
640	THM-ICR	Chloroform	1.0	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
641	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	5/5/98	5/9/98	5/9/98	0-125-0
642	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	5/3/98		5/3/98	8-0-177
643	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	5/3/98		5/3/98	8-0-177
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.20.Eff-17 **S&H ID:** 9805-82 **Date Sampled:** 5/4/98 8:50:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
644	Cl2Dose	Chlorine Dose	1.47	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/5/98		5/5/98	n/a
645	Cl2Res	Chlorine Residual	1.13	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/5/98		5/6/98	n/a
646	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	103.2	%	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
647	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.8	%	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
648	HAA-ICR	Bromochloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
649	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
650	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/6/98	5/19/98	5/19/98	0-129-0
651	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
652	HAA-ICR	Dichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
653	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
654	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/6/98	5/19/98	5/19/98	0-129-0
655	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/6/98	5/19/98	5/19/98	0-129-0
656	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
657	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/5/98		5/6/98	n/a
658	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/5/98		5/5/98	n/a
659	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	5/4/98		5/4/98	n/a
660	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	5/5/98		5/6/98	n/a
661	TEMP	Temperature	20.1	ºC	SM 2550 B	1	n/a	5/4/98		5/4/98	n/a
662	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/5/98		5/6/98	n/a
663	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	5/4/98		5/4/98	7-0-256
664	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	5/4/98		5/4/98	7-0-256
			ND	**mg/L**							
665	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	5/6/98		5/15/98	12-0-134
666	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/6/98		5/15/98	12-0-134
			ND	**µg Cl-/L**							
667	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.0	%	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
668	THM-ICR	Bromodichloromethane	2.0	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
669	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
670	THM-ICR	Chloroform	1.7	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
671	THM-ICR	Dibromochloromethane	1.4	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
672	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	5/4/98		5/5/98	8-0-178
673	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	5/4/98		5/5/98	8-0-178
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Sample ID: 103.INF.A-2 **S&H ID:** 9805-93 **Date Sampled:** 5/5/98 8:10:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
674	ALK	Alkalinity	20	mg/L	SM 2320 B	1	5	5/5/98		5/5/98	1-0-20
675	ALK	Alkalinity (Dupl)	21	mg/L	SM 2320 B	1	5	5/5/98		5/5/98	1-0-20
			21	**mg/L**	**4.8 % RPD**						
676	NH3	Ammonia Nitrogen	ND	mg/L	EPA 350.1	1	0.05	5/5/98		5/20/98	MW77862
677	BR	Bromide	ND	mg/L	EPA 300.0 A	1	0.020	5/5/98		5/27/98	MW77961
678	CaHardM	Calcium Hardness	19	mg/L CaCO3	EPA 200.7	1	5	5/5/98		6/18/98	MW n/a
679	CaMW	Calcium, Total, ICAP	8	mg/L	EPA 200.7	1	1	5/5/98	5/15/98	5/15/98	MW77529
680	MgMW	Magnesium, Total, ICAP	4	mg/L	EPA 200.7	1	1	5/5/98	5/15/98	5/15/98	MW77530
681	TotHard	Total Hardness as CaCO3 by ICP	35	mg/L CaCO3	SM 2340B	1	5	5/5/98		5/19/98	MW n/a

Sample ID: 103.10.Eff-27 **S&H ID:** 9805-101 **Date Sampled:** 5/5/98 6:51:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
682	Cl2Dose	Chlorine Dose	1.90	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/5/98		5/5/98	n/a
683	Cl2Res	Chlorine Residual	1.20	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/5/98		5/6/98	n/a
684	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.8	%	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
685	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
686	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
687	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
688	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/6/98	5/19/98	5/19/98	0-129-0
689	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
690	HAA-ICR	Dichloroacetic acid	4.6	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
691	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
692	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/6/98	5/19/98	5/19/98	0-129-0
693	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/6/98	5/19/98	5/19/98	0-129-0
694	HAA-ICR	Trichloroacetic acid	3.6	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/19/98	0-129-0
695	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/5/98		5/6/98	n/a
696	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/5/98		5/5/98	n/a
697	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/5/98		5/5/98	n/a
698	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	5/5/98		5/6/98	n/a
699	TEMP	Temperature	21.9	ºC	SM 2550 B	1	n/a	5/5/98		5/5/98	n/a
700	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/5/98		5/6/98	n/a
701	TOC-ICR	TOC	1.04	mg/L	SM 5310 C	1	0.50	5/5/98		5/5/98	7-0-257
702	TOC-ICR	TOC (Dupl)	1.06	mg/L	SM 5310 C	1	0.50	5/5/98		5/5/98	7-0-257
			1.05	**mg/L**	**1.9 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

703	TOX-ICR	TOX	67	µg Cl-/L	SM 5320 B	1	25	5/6/98		5/14/98	12-0-133
704	TOX-ICR	TOX (Dupl)	70	µg Cl-/L	SM 5320 B	1	25	5/6/98		5/14/98	12-0-133
			69	**µg Cl-/L**	**4.3 % RPD**						
705	THM-ICR	1,2,3-Trichloropropane (Surrogate)	98.8	%	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
706	THM-ICR	Bromodichloromethane	5.5	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
707	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
708	THM-ICR	Chloroform	11.2	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
709	THM-ICR	Dibromochloromethane	1.6	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
710	UV-ICR	UV	0.016	1/cm	SM 5910 B	1	0.009	5/5/98		5/5/98	8-0-178
711	UV-ICR	UV (Dupl)	0.017	1/cm	SM 5910 B	1	0.009	5/5/98		5/5/98	8-0-178
			0.017	**1/cm**	**5.9 % RPD**						

Sample ID: 103.20.Eff-18 **S&H ID:** 9805-106 **Date Sampled:** 5/5/98 11:10:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
712	Cl2Dose	Chlorine Dose	1.54	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/5/98		5/5/98	n/a
713	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/5/98		5/6/98	n/a
714	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.4	%	EPA 552.2	1	1.0	5/6/98	5/19/98	5/20/98	0-129-0
715	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.4	%	EPA 552.2	1	1.0	5/6/98	5/19/98	5/20/98	0-129-0
716	HAA-ICR	Bromochloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/20/98	0-129-0
717	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/20/98	0-129-0
718	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/6/98	5/19/98	5/20/98	0-129-0
719	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/20/98	0-129-0
720	HAA-ICR	Dichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/20/98	0-129-0
721	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/20/98	0-129-0
722	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/6/98	5/19/98	5/20/98	0-129-0
723	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/6/98	5/19/98	5/20/98	0-129-0
724	HAA-ICR	Trichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	5/6/98	5/19/98	5/20/98	0-129-0
725	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	5/5/98		5/6/98	n/a
726	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	5/5/98		5/5/98	n/a
727	pH	pH	7.4	Unit	SM 4500-H+ B	1	n/a	5/5/98		5/5/98	n/a
728	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	5/5/98		5/6/98	n/a
729	TEMP	Temperature	21.6	ºC	SM 2550 B	1	n/a	5/5/98		5/5/98	n/a
730	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/5/98		5/6/98	n/a
731	TOC-ICR	TOC	0.57	mg/L	SM 5310 C	1	0.50	5/5/98		5/5/98	7-0-257
732	TOC-ICR	TOC (Dupl)	0.59	mg/L	SM 5310 C	1	0.50	5/5/98		5/5/98	7-0-257
			0.58	**mg/L**	**3.4 % RPD**						
733	TOX-ICR	TOX	26	µg Cl-/L	SM 5320 B	1	25	5/6/98		5/15/98	12-0-134
734	TOX-ICR	TOX (Dupl)	26	µg Cl-/L	SM 5320 B	1	25	5/6/98		5/15/98	12-0-134

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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			26	**µg Cl-/L**	**0.0 % RPD**						
735	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.4	%	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
736	THM-ICR	1,2,3-Trichloropropane (Surrogate) (Lab Dupl)	99.2	%	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
			99.8	**%**	**1.2 % RPD**						
737	THM-ICR	Bromodichloromethane	2.8	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
738	THM-ICR	Bromodichloromethane (Lab Dupl)	2.8	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
			2.8	**µg/L**	**0.0 % RPD**						
739	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
740	THM-ICR	Bromoform (Lab Dupl)	ND	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
			ND	**µg/L**							
741	THM-ICR	Chloroform	2.9	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
742	THM-ICR	Chloroform (Lab Dupl)	3.0	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
			3.0	**µg/L**	**3.3 % RPD**						
743	THM-ICR	Dibromochloromethane	1.6	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
744	THM-ICR	Dibromochloromethane (Lab Dupl)	1.6	µg/L	EPA 551.1	1	1.0	5/6/98	5/15/98	5/15/98	0-128-0
			1.6	**µg/L**	**0.0 % RPD**						
745	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	5/5/98		5/5/98	8-0-178
746	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	5/5/98		5/5/98	8-0-178
			ND	**1/cm**							

Sample ID: 103.INF.B-4 **S&H ID:** 9805-109 **Date Sampled:** 5/6/98 8:40:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
747	NH3	Ammonia Nitrogen	ND	mg/L	EPA 350.1	1	0.05	5/8/98		6/2/98	MW78339
748	BR	Bromide	ND	mg/L	EPA 300.0 A	1	0.020	5/8/98		6/1/98	MW78267
749	CaHardM	Calcium Hardness	16	mg/L CaCO3	EPA 200.7	1	5	5/8/98		6/1/98	MW n/a
750	CaMW	Calcium, Total, ICAP	6	mg/L	EPA 200.7	1	1	5/8/98	5/15/98	5/29/98	MW78108
751	Cl2Dose	Chlorine Dose	2.30	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/7/98		5/7/98	n/a
752	Cl2Res	Chlorine Residual	1.16	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/7/98		5/8/98	n/a
753	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	109.6	%	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
754	HAA-ICR	2-Bromopropionic acid (Surrogate)	91.6	%	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
755	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
756	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
757	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/8/98	5/19/98	5/20/98	0-129-0
758	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
759	HAA-ICR	Dichloroacetic acid	8.1	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
760	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
761	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/8/98	5/19/98	5/20/98	0-129-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

762	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/8/98	5/19/98	5/20/98	0-129-0
763	HAA-ICR	Trichloroacetic acid	6.6	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
764	MgMW	Magnesium, Total, ICAP	2	mg/L	EPA 200.7	1	0	5/8/98	5/29/98	5/29/98	MW78118
765	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/7/98		5/8/98	n/a
766	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/7/98		5/7/98	n/a
767	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	5/6/98		5/6/98	n/a
768	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	5/7/98		5/8/98	n/a
769	TEMP	Temperature	15.7	ºC	SM 2550 B	1	n/a	5/6/98		5/6/98	n/a
770	TIME	Cl2 Incubation Time	24.6	hrs	n/a	1	n/a	5/7/98		5/8/98	n/a
771	TotHard	Total Hardness as CaCO3 by ICP	27	mg/L CaCO3	SM 2340B	1	7	5/8/98		6/1/98	MW n/a
772	TOC-ICR	TOC	1.46	mg/L	SM 5310 C	1	0.50	5/6/98		5/6/98	7-0-258
773	TOC-ICR	TOC (Dupl)	1.50	mg/L	SM 5310 C	1	0.50	5/6/98		5/6/98	7-0-258
			1.48	**mg/L**	**2.7 % RPD**						
774	TOX-ICR	TOX	120	µg Cl-/L	SM 5320 B	1	25	5/8/98		5/18/98	12-0-135
775	TOX-ICR	TOX (Dupl)	122	µg Cl-/L	SM 5320 B	1	25	5/8/98		5/18/98	12-0-135
			121	**µg Cl-/L**	**1.7 % RPD**						
776	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.8	%	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
777	THM-ICR	Bromodichloromethane	6.8	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
778	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
779	THM-ICR	Chloroform	25.0	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
780	THM-ICR	Dibromochloromethane	1.1	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
781	TURB	Turbidity	0.10	ntu	SM 2130 B	1	0.05	5/6/98		5/6/98	9-0-10
782	UV-ICR	UV	0.030	1/cm	SM 5910 B	1	0.009	5/6/98		5/7/98	8-0-179
783	UV-ICR	UV (Dupl)	0.030	1/cm	SM 5910 B	1	0.009	5/6/98		5/7/98	8-0-179
			0.030	**1/cm**	**0.0 % RPD**						

Sample ID: 103.20.Eff-20 **S&H ID:** 9805-118 **Date Sampled:** 5/6/98 1:04:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
784	Cl2Dose	Chlorine Dose	1.50	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/7/98		5/7/98	n/a
785	Cl2Res	Chlorine Residual	1.07	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/7/98		5/8/98	n/a
786	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	109.2	%	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
787	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard) (Lab Dupl)	112.8	%	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
			111.0	**%**	**3.2 % RPD**						
788	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.8	%	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
789	HAA-ICR	2-Bromopropionic acid (Surrogate) (Lab Dupl)	90.8	%	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

			91.8	**%**	**2.2 % RPD**						
790	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
791	HAA-ICR	Bromochloroacetic acid (Lab Dupl)	1.2	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
			1.3	**µg/L**	**7.7 % RPD**						
792	HAA-ICR	Bromodichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
793	HAA-ICR	Bromodichloroacetic acid (Lab Dupl)	1.0	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
			1.0	**µg/L**	**0.0 % RPD**						
794	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/8/98	5/19/98	5/20/98	0-129-0
795	HAA-ICR	Chlorodibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	5/8/98	5/19/98	5/20/98	0-129-0
			ND	**µg/L**							
796	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
797	HAA-ICR	Dibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
			ND	**µg/L**							
798	HAA-ICR	Dichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
799	HAA-ICR	Dichloroacetic acid (Lab Dupl)	1.8	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
			1.9	**µg/L**	**5.3 % RPD**						
800	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
801	HAA-ICR	Monobromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
			ND	**µg/L**							
802	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/8/98	5/19/98	5/20/98	0-129-0
803	HAA-ICR	Monochloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	5/8/98	5/19/98	5/20/98	0-129-0
			ND	**µg/L**							
804	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/8/98	5/19/98	5/20/98	0-129-0
805	HAA-ICR	Tribromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	4.0	5/8/98	5/19/98	5/20/98	0-129-0
			ND	**µg/L**							
806	HAA-ICR	Trichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
807	HAA-ICR	Trichloroacetic acid (Lab Dupl)	1.2	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
			1.2	**µg/L**	**0.0 % RPD**						
808	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/7/98		5/8/98	n/a
809	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/7/98		5/7/98	n/a
810	pH	pH	7.5	Unit	SM 4500-H+ B	1	n/a	5/6/98		5/6/98	n/a
811	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	5/7/98		5/8/98	n/a
812	TEMP	Temperature	21.9	ºC	SM 2550 B	1	n/a	5/6/98		5/6/98	n/a
813	TIME	Cl2 Incubation Time	24.5	hrs	n/a	1	n/a	5/7/98		5/8/98	n/a
814	TOC-ICR	TOC	0.62	mg/L	SM 5310 C	1	0.50	5/6/98		5/6/98	7-0-258
815	TOC-ICR	TOC (Dupl)	0.65	mg/L	SM 5310 C	1	0.50	5/6/98		5/6/98	7-0-258
			0.64	**mg/L**	**4.7 % RPD**						
816	TOX-ICR	TOX	26	µg Cl-/L	SM 5320 B	1	25	5/8/98		5/15/98	12-0-134
817	TOX-ICR	TOX (Dupl)	27	µg Cl-/L	SM 5320 B	1	25	5/8/98		5/15/98	12-0-134

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

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			27	**µg Cl-/L**	**3.7 % RPD**						
818	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.8	%	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
819	THM-ICR	Bromodichloromethane	3.5	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
820	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
821	THM-ICR	Chloroform	3.6	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
822	THM-ICR	Dibromochloromethane	2.0	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
823	UV-ICR	UV	0.011	1/cm	SM 5910 B	1	0.009	5/6/98		5/7/98	8-0-179
824	UV-ICR	UV (Dupl)	0.011	1/cm	SM 5910 B	1	0.009	5/6/98		5/7/98	8-0-179
			0.011	**1/cm**	**0.0 % RPD**						

Sample ID: 103.20.Eff-20d **S&H ID:** 9805-119 **Date Sampled:** 5/6/98 1:04:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
825	Cl2Dose	Chlorine Dose	1.51	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/7/98		5/7/98	n/a
826	Cl2Res	Chlorine Residual	1.06	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/7/98		5/8/98	n/a
827	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	108.8	%	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
828	HAA-ICR	2-Bromopropionic acid (Surrogate)	93.2	%	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
829	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
830	HAA-ICR	Bromodichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
831	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/8/98	5/19/98	5/20/98	0-129-0
832	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
833	HAA-ICR	Dichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
834	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
835	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/8/98	5/19/98	5/20/98	0-129-0
836	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/8/98	5/19/98	5/20/98	0-129-0
837	HAA-ICR	Trichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	5/8/98	5/19/98	5/20/98	0-129-0
838	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/7/98		5/8/98	n/a
839	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/7/98		5/7/98	n/a
840	pH	pH	7.2	Unit	SM 4500-H+ B	1	n/a	5/6/98		5/6/98	n/a
841	TEMP	Cl2 Temperature	17.7	ºC	SM 2550 B	1	n/a	5/7/98		5/8/98	n/a
842	TEMP	Temperature	21.9	ºC	SM 2550 B	1	n/a	5/6/98		5/6/98	n/a
843	TIME	Cl2 Incubation Time	24.5	hrs	n/a	1	n/a	5/7/98		5/8/98	n/a
844	TOC-ICR	TOC	0.64	mg/L	SM 5310 C	1	0.50	5/6/98		5/6/98	7-0-258
845	TOC-ICR	TOC (Dupl)	0.65	mg/L	SM 5310 C	1	0.50	5/6/98		5/6/98	7-0-258
			0.65	**mg/L**	**1.5 % RPD**						
846	TOX-ICR	TOX	26	µg Cl-/L	SM 5320 B	1	25	5/8/98		5/18/98	12-0-135
847	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	5/8/98		5/18/98	12-0-135
			25	**µg Cl-/L**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

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848	THM-ICR	1,2,3-Trichloropropane (Surrogate)	103.6	%	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
849	THM-ICR	Bromodichloromethane	3.5	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
850	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
851	THM-ICR	Chloroform	3.6	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
852	THM-ICR	Dibromochloromethane	2.1	µg/L	EPA 551.1	1	1.0	5/8/98	5/15/98	5/15/98	0-128-0
853	UV-ICR	UV	0.011	1/cm	SM 5910 B	1	0.009	5/6/98		5/7/98	8-0-179
854	UV-ICR	UV (Dupl)	0.011	1/cm	SM 5910 B	1	0.009	5/6/98		5/7/98	8-0-179
			0.011	**1/cm**	**0.0 % RPD**						

Sample ID: 103.10.Eff-28 **S&H ID:** 9805-120 **Date Sampled:** 5/6/98 1:20:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
855	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/6/98		5/6/98	n/a
856	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	5/6/98		5/6/98	n/a
857	TOC-ICR	TOC	1.12	mg/L	SM 5310 C	1	0.50	5/6/98		5/6/98	7-0-258
858	TOC-ICR	TOC (Dupl)	1.11	mg/L	SM 5310 C	1	0.50	5/6/98		5/6/98	7-0-258
			1.12	**mg/L**	**0.9 % RPD**						

Sample ID: 103.20.Eff-22 **S&H ID:** 9805-135 **Date Sampled:** 5/8/98 4:40:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
859	Cl2Dose	Chlorine Dose	1.56	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/11/98		5/11/98	n/a
860	Cl2Res	Chlorine Residual	1.16	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/11/98		5/12/98	n/a
861	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	110.8	%	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
862	HAA-ICR	2-Bromopropionic acid (Surrogate)	88.8	%	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
863	HAA-ICR	Bromochloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
864	HAA-ICR	Bromodichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
865	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/12/98	5/19/98	5/20/98	0-129-0
866	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
867	HAA-ICR	Dichloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
868	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
869	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/12/98	5/19/98	5/20/98	0-129-0
870	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/12/98	5/19/98	5/20/98	0-129-0
871	HAA-ICR	Trichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
872	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/11/98		5/12/98	n/a
873	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	5/11/98		5/11/98	n/a
874	pH	pH	7.4	Unit	SM 4500-H+ B	1	n/a	5/8/98		5/8/98	n/a
875	TEMP	Cl2 Temperature	18.2	ºC	SM 2550 B	1	n/a	5/11/98		5/12/98	n/a
876	TEMP	Temperature	22.2	ºC	SM 2550 B	1	n/a	5/8/98		5/8/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

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877	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/11/98		5/12/98	n/a
878	TOC-ICR	TOC	0.72	mg/L	SM 5310 C	1	0.50	5/8/98		5/8/98	7-0-260
879	TOC-ICR	TOC (Dupl)	0.71	mg/L	SM 5310 C	1	0.50	5/8/98		5/8/98	7-0-260
			0.71	**mg/L**	**1.4 % RPD**						
880	TOX-ICR	TOX	36	µg Cl-/L	SM 5320 B	1	25	5/12/98		5/19/98	12-0-136
881	TOX-ICR	TOX (Dupl)	40	µg Cl-/L	SM 5320 B	1	25	5/12/98		5/19/98	12-0-136
			38	**µg Cl-/L**	**10.5 % RPD**						
882	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.4	%	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
883	THM-ICR	Bromodichloromethane	4.3	µg/L	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
884	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
885	THM-ICR	Chloroform	4.9	µg/L	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
886	THM-ICR	Dibromochloromethane	2.2	µg/L	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
887	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	5/8/98		5/9/98	8-0-180
888	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	5/8/98		5/9/98	8-0-180
			0.009	**1/cm**	**0.0 % RPD**						

Sample ID: 103.20.Eff-23 **S&H ID:** 9805-163 **Date Sampled:** 5/9/98 8:31:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
889	Cl2Dose	Chlorine Dose	1.60	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/11/98		5/11/98	n/a
890	Cl2Res	Chlorine Residual	1.12	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/11/98		5/12/98	n/a
891	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	109.2	%	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
892	HAA-ICR	2-Bromopropionic acid (Surrogate)	90.0	%	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
893	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
894	HAA-ICR	Bromodichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
895	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/12/98	5/19/98	5/20/98	0-129-0
896	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
897	HAA-ICR	Dichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
898	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
899	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/12/98	5/19/98	5/20/98	0-129-0
900	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/12/98	5/19/98	5/20/98	0-129-0
901	HAA-ICR	Trichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	5/12/98	5/19/98	5/20/98	0-129-0
902	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/11/98		5/12/98	n/a
903	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/11/98		5/11/98	n/a
904	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/9/98		5/9/98	n/a
905	TEMP	Cl2 Temperature	18.2	ºC	SM 2550 B	1	n/a	5/11/98		5/12/98	n/a
906	TEMP	Temperature	23.0	ºC	SM 2550 B	1	n/a	5/9/98		5/9/98	n/a
907	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	5/11/98		5/12/98	n/a
908	TOC-ICR	TOC	0.78	mg/L	SM 5310 C	1	0.50	5/9/98		5/10/98	7-0-262

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

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909	TOC-ICR	TOC (Dupl)	0.78	mg/L	SM 5310 C	1	0.50	5/9/98		5/10/98	7-0-262
			0.78	**mg/L**	**0.0 % RPD**						
910	TOX-ICR	TOX	41	µg Cl-/L	SM 5320 B	1	25	5/12/98		5/19/98	12-0-136
911	TOX-ICR	TOX (Dupl)	44	µg Cl-/L	SM 5320 B	1	25	5/12/98		5/19/98	12-0-136
			43	**µg Cl-/L**	**7.0 % RPD**						
912	THM-ICR	1,2,3-Trichloropropane (Surrogate)	104.0	%	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
913	THM-ICR	Bromodichloromethane	4.7	µg/L	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
914	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
915	THM-ICR	Chloroform	6.0	µg/L	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
916	THM-ICR	Dibromochloromethane	2.2	µg/L	EPA 551.1	1	1.0	5/12/98	5/15/98	5/16/98	0-128-0
917	UV-ICR	UV	0.010	1/cm	SM 5910 B	1	0.009	5/9/98		5/11/98	8-0-181
918	UV-ICR	UV (Dupl)	0.010	1/cm	SM 5910 B	1	0.009	5/9/98		5/11/98	8-0-181
			0.010	**1/cm**	**0.0 % RPD**						

Sample ID: 103.INF.B-5 **S&H ID:** 9805-191 **Date Sampled:** 5/11/98 10:10:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
919	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	5/11/98		5/11/98	n/a
920	TEMP	Temperature	17.6	ºC	SM 2550 B	1	n/a	5/11/98		5/11/98	n/a
921	TOC-ICR	TOC	1.66	mg/L	SM 5310 C	1	0.50	5/11/98		5/11/98	7-0-263
922	TOC-ICR	TOC (Dupl)	1.66	mg/L	SM 5310 C	1	0.50	5/11/98		5/11/98	7-0-263
			1.66	**mg/L**	**0.0 % RPD**						

Sample ID: 103.20.Eff-26 **S&H ID:** 9805-219 **Date Sampled:** 5/12/98 2:43:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
923	Cl2Dose	Chlorine Dose	1.63	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/13/98		5/13/98	n/a
924	Cl2Res	Chlorine Residual	0.93	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/13/98		5/14/98	n/a
925	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.0	%	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
926	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
927	HAA-ICR	Bromochloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
928	HAA-ICR	Bromodichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
929	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/14/98	5/27/98	5/28/98	0-134-0
930	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
931	HAA-ICR	Dichloroacetic acid	4.5	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
932	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
933	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/14/98	5/27/98	5/28/98	0-134-0
934	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/14/98	5/27/98	5/28/98	0-134-0
935	HAA-ICR	Trichloroacetic acid	4.7	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
936	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	5/13/98		5/14/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

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City of Greensboro

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937	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/13/98		5/13/98	n/a
938	pH	pH	7.5	Unit	SM 4500-H+ B	1	n/a	5/12/98		5/12/98	n/a
939	TEMP	Cl2 Temperature	18.0	ºC	SM 2550 B	1	n/a	5/13/98		5/14/98	n/a
940	TEMP	Temperature	22.7	ºC	SM 2550 B	1	n/a	5/12/98		5/12/98	n/a
941	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/13/98		5/14/98	n/a
942	TOC-ICR	TOC	0.85	mg/L	SM 5310 C	1	0.50	5/12/98		5/12/98	7-0-264
943	TOC-ICR	TOC (Dupl)	0.88	mg/L	SM 5310 C	1	0.50	5/12/98		5/12/98	7-0-264
			0.86	**mg/L**	**3.5 % RPD**						
944	TOX-ICR	TOX	52	µg Cl-/L	SM 5320 B	1	25	5/14/98		5/19/98	12-0-136
945	TOX-ICR	TOX (Dupl)	53	µg Cl-/L	SM 5320 B	1	25	5/14/98		5/19/98	12-0-136
			53	**µg Cl-/L**	**1.9 % RPD**						
946	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.8	%	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
947	THM-ICR	Bromodichloromethane	5.0	µg/L	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
948	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
949	THM-ICR	Chloroform	7.5	µg/L	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
950	THM-ICR	Dibromochloromethane	2.0	µg/L	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
951	UV-ICR	UV	0.013	1/cm	SM 5910 B	1	0.009	5/12/98		5/14/98	8-0-183
952	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	5/12/98		5/14/98	8-0-183
			0.013	**1/cm**	**0.0 % RPD**						

Sample ID: 103.20.Eff-26d **S&H ID:** 9805-220 **Date Sampled:** 5/12/98 2:43:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
953	Cl2Dose	Chlorine Dose	1.64	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/13/98		5/13/98	n/a
954	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/13/98		5/14/98	n/a
955	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.4	%	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
956	HAA-ICR	2-Bromopropionic acid (Surrogate)	93.2	%	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
957	HAA-ICR	Bromochloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
958	HAA-ICR	Bromodichloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
959	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/14/98	5/27/98	5/28/98	0-134-0
960	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
961	HAA-ICR	Dichloroacetic acid	4.3	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
962	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
963	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/14/98	5/27/98	5/28/98	0-134-0
964	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/14/98	5/27/98	5/28/98	0-134-0
965	HAA-ICR	Trichloroacetic acid	4.5	µg/L	EPA 552.2	1	1.0	5/14/98	5/27/98	5/28/98	0-134-0
966	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	5/13/98		5/14/98	n/a
967	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	5/13/98		5/13/98	n/a
968	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/12/98		5/12/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

969	TEMP	Cl2 Temperature	18.0	ºC	SM 2550 B	1	n/a	5/13/98		5/14/98	n/a
970	TEMP	Temperature	22.6	ºC	SM 2550 B	1	n/a	5/12/98		5/12/98	n/a
971	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	5/13/98		5/14/98	n/a
972	TOC-ICR	TOC	0.89	mg/L	SM 5310 C	1	0.50	5/12/98		5/12/98	7-0-264
973	TOC-ICR	TOC (Dupl)	0.88	mg/L	SM 5310 C	1	0.50	5/12/98		5/12/98	7-0-264
			0.89	**mg/L**	**1.1 % RPD**						
974	TOX-ICR	TOX	51	µg Cl-/L	SM 5320 B	1	25	5/14/98		5/19/98	12-0-136
975	TOX-ICR	TOX (Dupl)	53	µg Cl-/L	SM 5320 B	1	25	5/14/98		5/19/98	12-0-136
			52	**µg Cl-/L**	**3.8 % RPD**						
976	THM-ICR	1,2,3-Trichloropropane (Surrogate)	97.6	%	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
977	THM-ICR	Bromodichloromethane	5.2	µg/L	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
978	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
979	THM-ICR	Chloroform	7.6	µg/L	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
980	THM-ICR	Dibromochloromethane	2.2	µg/L	EPA 551.1	1	1.0	5/14/98	5/21/98	5/21/98	0-130-0
981	UV-ICR	UV	0.012	1/cm	SM 5910 B	1	0.009	5/12/98		5/14/98	8-0-183
982	UV-ICR	UV (Dupl)	0.012	1/cm	SM 5910 B	1	0.009	5/12/98		5/14/98	8-0-183
			0.012	**1/cm**	**0.0 % RPD**						

Sample ID: 103.INF.B-6 **S&H ID:** 9805-337 **Date Sampled:** 5/16/98 3:30:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
983	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	5/16/98		5/16/98	n/a
984	TEMP	Temperature	18.3	ºC	SM 2550 B	1	n/a	5/16/98		5/16/98	n/a

Sample ID: 103.20.Eff-31 **S&H ID:** 9805-376 **Date Sampled:** 5/17/98 3:12:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
985	Cl2Dose	Chlorine Dose	1.66	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/21/98		5/21/98	n/a
986	Cl2Res	Chlorine Residual	0.98	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/21/98		5/22/98	n/a
987	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.4	%	EPA 552.2	1	1.0	5/22/98	6/1/98	6/3/98	0-138-0
988	HAA-ICR	2-Bromopropionic acid (Surrogate)	86.4	%	EPA 552.2	1	1.0	5/22/98	6/1/98	6/3/98	0-138-0
989	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	5/22/98	6/1/98	6/3/98	0-138-0
990	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/22/98	6/1/98	6/3/98	0-138-0
991	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/22/98	6/1/98	6/3/98	0-138-0
992	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/22/98	6/1/98	6/3/98	0-138-0
993	HAA-ICR	Dichloroacetic acid	3.8	µg/L	EPA 552.2	1	1.0	5/22/98	6/1/98	6/3/98	0-138-0
994	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/22/98	6/1/98	6/3/98	0-138-0
995	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/22/98	6/1/98	6/3/98	0-138-0
996	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/22/98	6/1/98	6/3/98	0-138-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

997	HAA-ICR	Trichloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	5/22/98	6/1/98	6/3/98	0-138-0
998	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/21/98		5/22/98	n/a
999	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	5/21/98		5/21/98	n/a
1000	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/17/98		5/17/98	n/a
1001	TEMP	Cl2 Temperature	18.0	ºC	SM 2550 B	1	n/a	5/21/98		5/22/98	n/a
1002	TEMP	Temperature	22.9	ºC	SM 2550 B	1	n/a	5/17/98		5/17/98	n/a
1003	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	5/21/98		5/22/98	n/a
1004	TOC-ICR	TOC	0.90	mg/L	SM 5310 C	1	0.50	5/17/98		5/19/98	7-0-269
1005	TOC-ICR	TOC (Dupl)	0.91	mg/L	SM 5310 C	1	0.50	5/17/98		5/19/98	7-0-269
			0.91	**mg/L**	**1.1 % RPD**						
1006	TOX-ICR	TOX	62	µg Cl-/L	SM 5320 B	1	25	5/22/98		5/29/98	12-0-143
1007	TOX-ICR	TOX (Dupl)	63	µg Cl-/L	SM 5320 B	1	25	5/22/98		5/29/98	12-0-143
			63	**µg Cl-/L**	**1.6 % RPD**						
1008	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.4	%	EPA 551.1	1	1.0	5/22/98	5/28/98	5/29/98	0-136-0
1009	THM-ICR	Bromodichloromethane	5.7	µg/L	EPA 551.1	1	1.0	5/22/98	5/28/98	5/29/98	0-136-0
1010	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/22/98	5/28/98	5/29/98	0-136-0
1011	THM-ICR	Chloroform	9.7	µg/L	EPA 551.1	1	1.0	5/22/98	5/28/98	5/29/98	0-136-0
1012	THM-ICR	Dibromochloromethane	2.0	µg/L	EPA 551.1	1	1.0	5/22/98	5/28/98	5/29/98	0-136-0
1013	UV-ICR	UV	0.014	1/cm	SM 5910 B	1	0.009	5/17/98		5/19/98	8-0-187
1014	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	5/17/98		5/19/98	8-0-187
			0.014	**1/cm**	**7.1 % RPD**						

Sample ID: 103.20.Eff-33 **S&H ID:** 9805-417 **Date Sampled:** 5/19/98 4:15:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1015	Cl2Dose	Chlorine Dose	1.73	mg/L as Cl2	SM 4500-Cl B	1	n/a	5/21/98		5/21/98	n/a
1016	Cl2Res	Chlorine Residual	1.03	mg/L as Cl2	SM 4500-Cl F	1	0.10	5/21/98		5/22/98	n/a
1017	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.0	%	EPA 552.2	1	1.0	5/22/98	6/4/98	6/5/98	0-140-0
1018	HAA-ICR	2-Bromopropionic acid (Surrogate)	94.0	%	EPA 552.2	1	1.0	5/22/98	6/4/98	6/5/98	0-140-0
1019	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	5/22/98	6/4/98	6/5/98	0-140-0
1020	HAA-ICR	Bromodichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	5/22/98	6/4/98	6/5/98	0-140-0
1021	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/22/98	6/4/98	6/5/98	0-140-0
1022	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/22/98	6/4/98	6/5/98	0-140-0
1023	HAA-ICR	Dichloroacetic acid	5.0	µg/L	EPA 552.2	1	1.0	5/22/98	6/4/98	6/5/98	0-140-0
1024	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	5/22/98	6/4/98	6/5/98	0-140-0
1025	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	5/22/98	6/4/98	6/5/98	0-140-0
1026	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	5/22/98	6/4/98	6/5/98	0-140-0
1027	HAA-ICR	Trichloroacetic acid	3.3	µg/L	EPA 552.2	1	1.0	5/22/98	6/4/98	6/5/98	0-140-0
1028	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	5/21/98		5/22/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

1029	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	5/21/98		5/21/98	n/a
1030	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/19/98		5/19/98	n/a
1031	TEMP	Cl2 Temperature	18.0	ºC	SM 2550 B	1	n/a	5/21/98		5/22/98	n/a
1032	TEMP	Temperature	23.6	ºC	SM 2550 B	1	n/a	5/19/98		5/19/98	n/a
1033	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	5/21/98		5/22/98	n/a
1034	TOC-ICR	TOC	1.02	mg/L	SM 5310 C	1	0.50	5/19/98		5/20/98	7-0-274
1035	TOC-ICR	TOC (Dupl)	1.04	mg/L	SM 5310 C	1	0.50	5/19/98		5/20/98	7-0-274
			1.03	**mg/L**	**1.9 % RPD**						
1036	TOX-ICR	TOX	64	µg Cl-/L	SM 5320 B	1	25	5/22/98		6/1/98	12-0-144
1037	TOX-ICR	TOX (Dupl)	69	µg Cl-/L	SM 5320 B	1	25	5/22/98		6/1/98	12-0-144
			67	**µg Cl-/L**	**7.5 % RPD**						
1038	THM-ICR	1,2,3-Trichloropropane (Surrogate)	104.8	%	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
1039	THM-ICR	1,2,3-Trichloropropane (Surrogate) (Lab Dupl)	100.8	%	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
			102.8	**%**	**3.9 % RPD**						
1040	THM-ICR	Bromodichloromethane	5.9	µg/L	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
1041	THM-ICR	Bromodichloromethane (Lab Dupl)	6.2	µg/L	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
			6.1	**µg/L**	**4.9 % RPD**						
1042	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
1043	THM-ICR	Bromoform (Lab Dupl)	ND	µg/L	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
			ND	**µg/L**							
1044	THM-ICR	Chloroform	10.8	µg/L	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
1045	THM-ICR	Chloroform (Lab Dupl)	11.2	µg/L	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
			11.0	**µg/L**	**3.6 % RPD**						
1046	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
1047	THM-ICR	Dibromochloromethane (Lab Dupl)	1.9	µg/L	EPA 551.1	1	1.0	5/22/98	6/3/98	6/3/98	0-139-0
			1.9	**µg/L**	**0.0 % RPD**						
1048	UV-ICR	UV	0.015	1/cm	SM 5910 B	1	0.009	5/19/98		5/21/98	8-0-188
1049	UV-ICR	UV (Dupl)	0.015	1/cm	SM 5910 B	1	0.009	5/19/98		5/21/98	8-0-188
			0.015	**1/cm**	**0.0 % RPD**						

Sample ID: 103.20.Eff-34 **S&H ID:** 9805-446 **Date Sampled:** 5/21/98 7:01:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1050	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	5/21/98		5/21/98	n/a
1051	TEMP	Temperature	23.8	ºC	SM 2550 B	1	n/a	5/21/98		5/21/98	n/a
1052	TOC-ICR	TOC	1.04	mg/L	SM 5310 C	1	0.50	5/21/98		5/23/98	7-0-279
1053	TOC-ICR	TOC (Dupl)	1.07	mg/L	SM 5310 C	1	0.50	5/21/98		5/23/98	7-0-279
			1.06	**mg/L**	**2.8 % RPD**						

End of laboratory test results

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
Phone: (513) 679-2200
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Quality Control Report

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 103
Study Title: ICR RSSCT #1

Analysis: ALK (Alkalinity) **Method:** SM 2320 B

QC Batch ID: 1-0-19

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	100	97	mg/L	97%		04/22/98	9804-371	5		
Matrix Spike (Dupl)	Matrix Spike	100	101	mg/L	101%		04/22/98	9804-371	5		
		100	**99**	**mg/L**	**99%**	**4.0 %**					
Method Blank	Method Blank		ND*	mg/L			04/22/98	9804-374	5		
Standard	Standard	100	100	mg/L	100%		04/22/98	9804-375	5		
Standard (Dupl)	Standard	100	101	mg/L	101%		04/22/98	9804-375	5		
		100	**100**	**mg/L**	**100%**	**1.0 %**					
Matrix Spike	Matrix Spike	100	92	mg/L	92%		04/30/98	9804-501	5		
Matrix Spike (Dupl)	Matrix Spike	100	96	mg/L	96%		04/30/98	9804-501	5		
		100	**94**	**mg/L**	**94%**	**4.3 %**					
Method Blank	Method Blank		ND*	mg/L			04/30/98	9804-526	5		
Standard	Standard	100	99	mg/L	99%		04/30/98	9804-527	5		
Standard (Dupl)	Standard	100	101	mg/L	101%		04/30/98	9804-527	5		
		100	**100**	**mg/L**	**100%**	**2.0 %**					

Analysis: ALK (Alkalinity) **Method:** SM 2320 B

QC Batch ID: 1-0-20

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	100	99	mg/L	99%		05/05/98	9805-93	5		
Matrix Spike (Dupl)	Matrix Spike	100	98	mg/L	98%		05/05/98	9805-93	5		
		100	**98**	**mg/L**	**98%**	**1.0 %**					
Method Blank	Method Blank		ND*	mg/L			05/05/98	9805-95	5		
Standard	Standard	100	100	mg/L	100%		05/05/98	9805-96	5		
Standard (Dupl)	Standard	100	101	mg/L	101%		05/05/98	9805-96	5		
		100	**100**	**mg/L**	**100%**	**1.0 %**					
Matrix Spike	Matrix Spike	100	98	mg/L	98%		05/09/98	9805-147	5		
Matrix Spike (Dupl)	Matrix Spike	100	98	mg/L	98%		05/09/98	9805-147	5		
		100	**98**	**mg/L**	**98%**	**0.0 %**					
Method Blank	Method Blank		ND*	mg/L			05/09/98	9805-152	5		
Standard	Standard	100	99	mg/L	99%		05/09/98	9805-153	5		
Standard (Dupl)	Standard	100	100	mg/L	100%		05/09/98	9805-153	5		
		100	**100**	**mg/L**	**100%**	**1.0 %**					

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-237

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	4.20	mg/L	105%		9804-213	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.26	mg/L	106%		9804-213	0.5		
		4.00	**4.23**	**mg/L**	**106%**	**1.4 %**				
Method Blank	Method Blank		ND*	mg/L			9804-210	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9804-210	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9804-59	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9804-59	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.91	mg/L	98%		9804-60	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.07	mg/L	102%		9804-60	0.5	90-110%	
		4.00	**3.99**	**mg/L**	**100%**	**4.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-244

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.87	mg/L	97%		9804-365	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.92	mg/L	98%		9804-365	0.5		
		4.00	**3.89**	**mg/L**	**97%**	**1.5 %**				
Method Blank	Method Blank		ND*	mg/L			9804-357	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9804-357	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.42	mg/L	84%		9804-267	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.43	mg/L	86%		9804-267	0.5	50-150%	
		0.50	**0.43**	**mg/L**	**86%**	**2.3 %**			50-150%	20%
Standard	Standard	4.00	3.94	mg/L	98%		9804-268	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.93	mg/L	98%		9804-268	0.5	90-110%	
		4.00	**3.94**	**mg/L**	**98%**	**0.3 %**			90-110%	10%
Standard	Standard	10.00	10.02	mg/L	100%		9804-73	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.00	mg/L	100%		9804-73	0.5	90-110%	
		10.00	**10.01**	**mg/L**	**100%**	**0.2 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-245

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.92	mg/L	98%		9804-386	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.84	mg/L	96%		9804-386	0.5		
		4.00	**3.88**	**mg/L**	**97%**	**2.1 %**				

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Method Blank	Method Blank		ND*	mg/L			9804-389	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9804-389	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.49	mg/L	98%		9804-267	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.48	mg/L	96%		9804-267	0.5	50-150%	
		0.50	**0.48**	**mg/L**	**96%**	**2.1 %**			50-150%	20%
Standard	Standard	4.00	4.00	mg/L	100%		9804-268	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.98	mg/L	100%		9804-268	0.5	90-110%	
		4.00	**3.99**	**mg/L**	**100%**	**0.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-247

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.67	mg/L	92%		9804-424	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.78	mg/L	94%		9804-424	0.5		
		4.00	**3.73**	**mg/L**	**93%**	**2.9 %**				
Method Blank	Method Blank		ND*	mg/L			9804-422	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9804-422	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.51	mg/L	102%		9804-267	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.53	mg/L	106%		9804-267	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**3.8 %**			50-150%	20%
Standard	Standard	4.00	4.00	mg/L	100%		9804-268	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9804-268	0.5	90-110%	
		4.00	**4.02**	**mg/L**	**100%**	**1.0 %**			90-110%	10%
Standard	Standard	10.00	9.99	mg/L	100%		9804-73	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.14	mg/L	101%		9804-73	0.5	90-110%	
		10.00	**10.06**	**mg/L**	**101%**	**1.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-248

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.03	mg/L	101%		9804-440	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.09	mg/L	102%		9804-440	0.5		
		4.00	**4.06**	**mg/L**	**101%**	**1.5 %**				
Method Blank	Method Blank		ND*	mg/L			9804-434	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9804-434	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9804-267	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9804-267	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	4.00	mg/L	100%		9804-268	0.5	90-110%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9804-268	0.5	90-110%	
		4.00	**4.01**	**mg/L**	**100%**	**0.5 %**			90-110%	10%
Standard	Standard	10.00	10.02	mg/L	100%		9804-73	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.18	mg/L	102%		9804-73	0.5	90-110%	
		10.00	**10.10**	**mg/L**	**101%**	**1.6 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-250

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.09	mg/L	102%		9804-487	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.90	mg/L	97%		9804-487	0.5		
		4.00	**4.00**	**mg/L**	**100%**	**4.8 %**				
Method Blank	Method Blank		ND*	mg/L			9804-499	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9804-499	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.49	mg/L	98%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.48	mg/L	96%		9804-474	0.5	50-150%	
		0.50	**0.49**	**mg/L**	**98%**	**2.0 %**			50-150%	20%
Standard	Standard	4.00	3.98	mg/L	100%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9804-475	0.5	90-110%	
		4.00	**4.00**	**mg/L**	**100%**	**1.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-251

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.92	mg/L	98%		9804-509	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.99	mg/L	100%		9804-509	0.5		
		4.00	**3.95**	**mg/L**	**99%**	**1.8 %**				
Method Blank	Method Blank		ND*	mg/L			9804-521	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9804-521	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9804-474	0.5	50-150%	
		0.50	**0.50**	**mg/L**	**100%**	**2.0 %**			50-150%	20%
Standard	Standard	4.00	3.92	mg/L	98%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9804-475	0.5	90-110%	
		4.00	**3.94**	**mg/L**	**98%**	**1.0 %**			90-110%	10%
Standard	Standard	10.00	10.09	mg/L	101%		9804-511	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.02	mg/L	100%		9804-511	0.5	90-110%	
		10.00	**10.06**	**mg/L**	**101%**	**0.7 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-252

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.92	mg/L	98%		9805-6	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.91	mg/L	98%		9805-6	0.5		
		4.00	**3.91**	**mg/L**	**98%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9805-22	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-22	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9804-474	0.5	50-150%	
		0.50	**0.50**	**mg/L**	**100%**	**2.0 %**			50-150%	20%
Standard	Standard	4.00	3.94	mg/L	98%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9804-475	0.5	90-110%	
		4.00	**3.95**	**mg/L**	**99%**	**0.5 %**			90-110%	10%
Standard	Standard	10.00	10.20	mg/L	102%		9804-511	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.04	mg/L	100%		9804-511	0.5	90-110%	
		10.00	**10.12**	**mg/L**	**101%**	**1.6 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-253

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9805-45	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.98	mg/L	100%		9805-45	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9805-27	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-27	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.49	mg/L	98%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.47	mg/L	94%		9804-474	0.5	50-150%	
		0.50	**0.48**	**mg/L**	**96%**	**4.2 %**			50-150%	20%
Standard	Standard	4.00	4.00	mg/L	100%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9804-475	0.5	90-110%	
		4.00	**4.01**	**mg/L**	**100%**	**0.5 %**			90-110%	10%
Standard	Standard	10.00	10.22	mg/L	102%		9804-511	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.30	mg/L	103%		9804-511	0.5	90-110%	
		10.00	**10.26**	**mg/L**	**103%**	**0.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-255

QC Type	Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Matrix Spike	Matrix Spike	4.00	3.73	mg/L	93%		9805-68	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.75	mg/L	94%		9805-68	0.5		
		4.00	**3.74**	**mg/L**	**94%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9805-69	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-69	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.51	mg/L	102%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.50	mg/L	100%		9804-474	0.5	50-150%	
		0.50	**0.50**	**mg/L**	**100%**	**2.0 %**			50-150%	20%
Standard	Standard	4.00	3.77	mg/L	94%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.94	mg/L	98%		9804-475	0.5	90-110%	
		4.00	**3.85**	**mg/L**	**96%**	**4.4 %**			90-110%	10%
Standard	Standard	10.00	10.12	mg/L	101%		9804-511	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.20	mg/L	102%		9804-511	0.5	90-110%	
		10.00	**10.16**	**mg/L**	**102%**	**0.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-256

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.90	mg/L	97%		9805-77	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.91	mg/L	98%		9805-77	0.5		
		4.00	**3.91**	**mg/L**	**98%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9805-83	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-83	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9804-474	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**3.9 %**			50-150%	20%
Standard	Standard	4.00	3.95	mg/L	99%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9804-475	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**1.8 %**			90-110%	10%
Standard	Standard	10.00	10.24	mg/L	102%		9804-511	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.30	mg/L	103%		9804-511	0.5	90-110%	
		10.00	**10.27**	**mg/L**	**103%**	**0.6 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-257

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.93	mg/L	98%		9805-103	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.90	mg/L	97%		9805-103	0.5		
		4.00	**3.91**	**mg/L**	**98%**	**0.8 %**				
Method Blank	Method Blank		ND*	mg/L			9805-94	0.5		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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City of Greensboro

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Study Title: ICR RSSCT #1

Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-94	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9804-474	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	3.88	mg/L	97%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9804-475	0.5	90-110%	
		4.00	**3.92**	**mg/L**	**98%**	**2.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-258

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.03	mg/L	101%		9805-110	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.09	mg/L	102%		9805-110	0.5		
		4.00	**4.06**	**mg/L**	**101%**	**1.7 %**				
Method Blank	Method Blank		ND*	mg/L			9805-108	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-108	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.51	mg/L	102%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9804-474	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.98	mg/L	100%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.03	mg/L	101%		9804-475	0.5	90-110%	
		4.00	**4.00**	**mg/L**	**100%**	**1.3 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-260

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.03	mg/L	101%		9805-134	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.08	mg/L	102%		9805-134	0.5		
		4.00	**4.05**	**mg/L**	**101%**	**1.2 %**				
Method Blank	Method Blank		ND*	mg/L			9805-145	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-145	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9804-474	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**2.0 %**			50-150%	20%
Standard	Standard	4.00	3.99	mg/L	100%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.00	mg/L	100%		9804-475	0.5	90-110%	
		4.00	**4.00**	**mg/L**	**100%**	**0.2 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-262

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9805-163	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.93	mg/L	98%		9805-163	0.5		
		4.00	**3.96**	**mg/L**	**99%**	**1.5 %**				
Method Blank	Method Blank		ND*	mg/L			9805-162	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-162	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.50	mg/L	100%		9804-474	0.5	50-150%	
		0.50	**0.50**	**mg/L**	**100%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.96	mg/L	99%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.93	mg/L	98%		9804-475	0.5	90-110%	
		4.00	**3.95**	**mg/L**	**99%**	**0.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-263

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9805-184	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.02	mg/L	100%		9805-184	0.5		
		4.00	**4.00**	**mg/L**	**100%**	**1.0 %**				
Method Blank	Method Blank		ND*	mg/L			9805-173	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-173	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.49	mg/L	98%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.49	mg/L	98%		9804-474	0.5	50-150%	
		0.50	**0.49**	**mg/L**	**98%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.94	mg/L	98%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.98	mg/L	100%		9804-475	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**1.0 %**			90-110%	10%
Standard	Standard	10.00	9.90	mg/L	99%		9804-511	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.22	mg/L	102%		9804-511	0.5	90-110%	
		10.00	**10.06**	**mg/L**	**101%**	**3.2 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-264

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.92	mg/L	98%		9805-207	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.95	mg/L	99%		9805-207	0.5		
		4.00	**3.94**	**mg/L**	**98%**	**0.8 %**				

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Method Blank	Method Blank		ND*	mg/L			9805-195	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-195	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.48	mg/L	96%		9804-474	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.49	mg/L	98%		9804-474	0.5	50-150%	
		0.50	**0.49**	**mg/L**	**98%**	**2.0 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9804-475	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.99	mg/L	100%		9804-475	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**0.5 %**			90-110%	10%
Standard	Standard	10.00	9.97	mg/L	100%		9804-511	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.09	mg/L	101%		9804-511	0.5	90-110%	
		10.00	**10.03**	**mg/L**	**100%**	**1.2 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-269

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.87	mg/L	97%		9805-349	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.82	mg/L	95%		9805-349	0.5		
		4.00	**3.84**	**mg/L**	**96%**	**1.0 %**				
Method Blank	Method Blank		ND*	mg/L			9805-411	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-411	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9805-257	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9805-257	0.5	50-150%	
		0.50	**0.53**	**mg/L**	**106%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	4.04	mg/L	101%		9805-201	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.05	mg/L	101%		9805-201	0.5	90-110%	
		4.00	**4.05**	**mg/L**	**101%**	**0.2 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-274

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.02	mg/L	100%		9805-417	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.99	mg/L	100%		9805-417	0.5		
		4.00	**4.01**	**mg/L**	**100%**	**0.7 %**				
Method Blank	Method Blank		ND*	mg/L			9805-428	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-428	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.56	mg/L	112%		9805-257	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9805-257	0.5	50-150%	
		0.50	**0.55**	**mg/L**	**110%**	**3.6 %**			50-150%	20%
Standard	Standard	4.00	3.99	mg/L	100%		9805-201	0.5	90-110%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard (Dupl)	Standard	4.00	4.06	mg/L	101%		9805-201	0.5	90-110%	
		4.00	**4.03**	**mg/L**	**101%**	**1.7 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-279

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.76	mg/L	94%		9805-456	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.85	mg/L	96%		9805-456	0.5		
		4.00	**3.80**	**mg/L**	**95%**	**2.1 %**				
Method Blank	Method Blank		ND*	mg/L			9805-448	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9805-448	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.51	mg/L	102%		9805-257	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9805-257	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	3.86	mg/L	96%		9805-447	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.99	mg/L	100%		9805-447	0.5	90-110%	
		4.00	**3.93**	**mg/L**	**98%**	**3.3 %**			90-110%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-169

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9804-390	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9804-390	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9804-390	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9804-390	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9804-269	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9804-269	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.085	1/cm	97%		9804-270	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9804-270	0.009	85-115%	
		0.088	**0.085**	**1/cm**	**97%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-171

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9804-422	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9804-422	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Method Blank	Method Blank		ND*	1/cm			9804-422	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9804-422	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9804-269	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9804-269	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.085	1/cm	97%		9804-270	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9804-270	0.009	85-115%	
		0.088	**0.085**	**1/cm**	**97%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-172

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9804-435	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9804-435	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9804-435	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9804-435	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.009	1/cm	100%		9804-269	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.009	1/cm	100%		9804-269	0.009	75-125%	
		0.009	**0.009**	**1/cm**	**100%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.087	1/cm	99%		9804-270	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.088	1/cm	100%		9804-270	0.009	85-115%	
		0.088	**0.087**	**1/cm**	**99%**	**1.1 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-173

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9804-490	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9804-490	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9804-490	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9804-490	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9804-476	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**14.3 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9804-477	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9804-477	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**1.2 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-174

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9805-23	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-23	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-23	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-23	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9804-476	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9804-476	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.085	1/cm	97%		9804-477	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9804-477	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-176

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9805-70	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-70	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-70	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-70	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9804-477	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9804-477	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-177

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9805-74	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-74	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-74	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-74	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.087	1/cm	99%		9804-477	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9804-477	0.009	85-115%	
		0.088	**0.087**	**1/cm**	**99%**	**1.1 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-178

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9805-107	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-107	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-107	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-107	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9804-476	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9804-476	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9804-477	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.087	1/cm	99%		9804-477	0.009	85-115%	
		0.088	**0.087**	**1/cm**	**99%**	**1.1 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-179

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9805-128	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-128	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-128	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-128	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.085	1/cm	97%		9804-477	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9804-477	0.009	85-115%	
		0.088	**0.085**	**1/cm**	**97%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-180

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9805-151	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-151	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-151	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-151	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9804-476	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**14.3 %**			75-125%	20%
Standard	Standard	0.088	0.087	1/cm	99%		9804-477	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.087	1/cm	99%		9804-477	0.009	85-115%	
		0.088	**0.087**	**1/cm**	**99%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-181

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9805-174	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-174	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-174	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-174	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9804-476	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9804-476	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**14.3 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9804-477	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9804-477	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-183

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9805-256	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-256	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-256	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-256	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.007	1/cm	78%		9805-258	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9805-258	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.085	1/cm	97%		9805-259	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9805-259	0.009	85-115%	
		0.088	**0.085**	**1/cm**	**97%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-187

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9805-412	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-412	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-412	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-412	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9805-258	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9805-258	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9805-259	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9805-259	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-188

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9805-436	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-436	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9805-436	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9805-436	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9805-258	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9805-258	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.085	1/cm	97%		9805-259	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9805-259	0.009	85-115%	
		0.088	**0.085**	**1/cm**	**97%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: TURB (Turbidity) **Method:** SM 2130 B

QC Batch ID: 9-0-10

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard	Standard	4.51	4.54	ntu	101%		04/27/98	9902-79	0.05		
Standard	Standard	4.51	4.56	ntu	101%		04/29/98	9902-79	0.05		
Standard	Standard	4.51	4.56	ntu	101%		05/04/98	9902-79	0.05		
Standard	Standard	4.51	4.56	ntu	101%		05/06/98	9902-79	0.05		
Standard	Standard	4.51	4.56	ntu	101%		05/08/98	9902-79	0.05		
Standard	Standard	4.51	4.56	ntu	101%		05/11/98	9902-79	0.05		
Standard	Standard	4.51	4.54	ntu	101%		05/15/98	9902-79	0.05		

Analysis: TURB (Turbidity) **Method:** SM 2130 B

QC Batch ID: 9-0-9

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard	Standard	4.51	4.61	ntu	102%		03/31/98	9902-79	0.05		
Standard	Standard	4.51	4.57	ntu	101%		04/04/98	9902-79	0.05		
Standard	Standard	4.51	4.56	ntu	101%		04/09/98	9902-79	0.05		
Standard	Standard	4.51	4.57	ntu	101%		04/10/98	9902-79	0.05		
Standard	Standard	4.51	4.59	ntu	102%		04/13/98	9902-79	0.05		
Standard	Standard	4.51	4.59	ntu	102%		04/13/98	9902-79	0.05		
Standard	Standard	4.51	4.62	ntu	102%		04/17/98	9902-79	0.05		
Standard	Standard	4.51	4.58	ntu	102%		04/22/98	9902-79	0.05		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-126

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	26	µg Cl-/L	104%		9804-515	25	75-125%	
Standard - TCP Aqueous (Dupl)	Standard	200	227	µg Cl-/L	114%		9804-514	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9804-516	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-127

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous (Dupl)	Standard	25	25	µg Cl-/L	100%		9805-114	25	75-125%	
Standard - TCP Aqueous	Standard	200	203	µg Cl-/L	101%		9805-113	25	85-115%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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System Blank	Blank	ND*	µg Cl-/L		9805-115	25

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-128

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	200	203	µg Cl-/L	101%		9804-399	25		
Matrix Spike (Dupl)	Matrix Spike	200	203	µg Cl-/L	101%		9804-399	25		
		200	**203**	**µg Cl-/L**	**101%**	**0.0 %**				
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9805-124	25	75-125%	
Standard - TCP Aqueous	Standard	200	197	µg Cl-/L	98%		9805-123	25	85-115%	
Standard - TCP Aqueous	Standard	500	491	µg Cl-/L	98%		9805-133	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9805-125	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-129

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9805-143	25	75-125%	
Standard - TCP Aqueous	Standard	200	199	µg Cl-/L	100%		9805-142	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9805-144	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-132

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	200	205	µg Cl-/L	102%		9805-54	25		
Matrix Spike (Dupl)	Matrix Spike	200	202	µg Cl-/L	101%		9805-54	25		
		200	**203**	**µg Cl-/L**	**101%**	**2.0 %**				
Standard - TCP Aqueous	Standard	25	26	µg Cl-/L	104%		9805-239	25	75-125%	
Standard - TCP Aqueous	Standard	200	202	µg Cl-/L	101%		9805-238	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9805-240	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-133

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9805-269	25	75-125%	
Standard - TCP Aqueous	Standard	200	207	µg Cl-/L	103%		9805-268	25	85-115%	
Standard - TCP Aqueous	Standard	500	500	µg Cl-/L	100%		9805-274	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9805-270	25		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-134

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9805-286	25	75-125%	
Standard - TCP Aqueous (Dupl)	Standard	200	176	µg Cl-/L	88%		9805-285	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9805-287	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-135

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	224	µg Cl-/L	112%		9805-138	25		
Matrix Spike (Dupl)	Matrix Spike	200	227	µg Cl-/L	114%		9805-138	25		
		200	**226**	**µg Cl-/L**	**113%**	**1.3 %**				
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9805-386	25	75-125%	
Standard - TCP Aqueous	Standard	200	210	µg Cl-/L	105%		9805-385	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9805-387	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-136

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	229	µg Cl-/L	115%		9805-135	25		
Matrix Spike (Dupl)	Matrix Spike	200	248	µg Cl-/L	124%		9805-135	25		
		200	**239**	**µg Cl-/L**	**120%**	**7.9 %**				
Standard - TCP Aqueous	Standard	25	27	µg Cl-/L	108%		9805-408	25	75-125%	
Standard - TCP Aqueous (Dupl)	Standard	200	203	µg Cl-/L	101%		9805-407	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9805-409	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-143

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	198	µg Cl-/L	99%		9805-333	25		
Matrix Spike (Dupl)	Matrix Spike	200	204	µg Cl-/L	102%		9805-333	25		
		200	**201**	**µg Cl-/L**	**100%**	**3.5 %**				
Standard - TCP Aqueous	Standard	25	22	µg Cl-/L	88%		9805-497	25	75-125%	
Standard - TCP Aqueous	Standard	200	209	µg Cl-/L	104%		9805-496	25	85-115%	
Standard - TCP Aqueous	Standard	500	506	µg Cl-/L	101%		9805-499	25	85-115%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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System Blank	Blank	ND*	µg Cl-/L		9805-498	25

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-144

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	200	198	µg Cl-/L	99%		9805-391	25		
Matrix Spike (Dupl)	Matrix Spike	200	197	µg Cl-/L	98%		9805-391	25		
		200	**198**	**µg Cl-/L**	**99%**	**1.0 %**				
Standard - TCP Aqueous	Standard	25	26	µg Cl-/L	104%		9806-3	25	75-125%	
Standard - TCP Aqueous	Standard	200	197	µg Cl-/L	98%		9806-2	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9806-4	25		

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-120-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	ND	ND	µg/L		NA	9804-333	1		
Bromodichloromethane	Matrix Spike	40.0	41.6	µg/L	104%		9804-387	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9804-522	1		
Bromodichloromethane	Secondary Source Std	20.0	22.4	µg/L	112%		9804-523	1	70-130%	
Bromodichloromethane	Standard	20.0	19.4	µg/L	97%		9804-524	1	80-120%	
Bromodichloromethane	Standard	20.0	22.3	µg/L	112%		9804-524	1	80-120%	
Bromodichloromethane	Standard	40.0	39.9	µg/L	100%		9804-525	1	80-120%	
Bromoform	Duplicate	2.2	2.4	µg/L		8.7%	9804-333	1		
Bromoform	Matrix Spike	40.0	37.3	µg/L	93%		9804-387	1		
Bromoform	Method Blank		ND*	µg/L			9804-522	1		
Bromoform	Secondary Source Std	20.0	21.4	µg/L	107%		9804-523	1	70-130%	
Bromoform	Standard	20.0	19.5	µg/L	97%		9804-524	1	80-120%	
Bromoform	Standard	20.0	19.7	µg/L	98%		9804-524	1	80-120%	
Bromoform	Standard	40.0	37.1	µg/L	93%		9804-525	1	80-120%	
Chloroform	Duplicate	ND	ND	µg/L		NA	9804-333	1		
Chloroform	Matrix Spike	40.0	40.6	µg/L	102%		9804-387	1		
Chloroform	Method Blank		ND*	µg/L			9804-522	1		
Chloroform	Secondary Source Std	20.0	22.9	µg/L	115%		9804-523	1	70-130%	
Chloroform	Standard	20.0	19.1	µg/L	96%		9804-524	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Standard	20.0	21.4	µg/L	107%		9804-524	1	80-120%
Chloroform	Standard	40.0	38.7	µg/L	97%		9805-525	1	80-120%
Dibromochloromethane	Duplicate	ND	ND	µg/L		NA	9804-333	1	
Dibromochloromethane	Matrix Spike	40.0	41.3	µg/L	103%		9804-387	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9804-522	1	
Dibromochloromethane	Secondary Source Std	20.0	22.0	µg/L	110%		9804-523	1	70-130%
Dibromochloromethane	Standard	20.0	19.8	µg/L	99%		9804-524	1	80-120%
Dibromochloromethane	Standard	20.0	22.7	µg/L	114%		9804-524	1	80-120%
Dibromochloromethane	Standard	40.0	40.3	µg/L	101%		9804-525	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-122-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	2.2	2.2	µg/L		0.0%	9804-502	1		
Bromodichloromethane	Matrix Spike	40.0	42.1	µg/L	105%		9804-456	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9805-97	1		
Bromodichloromethane	Secondary Source Std	20.0	20.1	µg/L	101%		9805-98	1	70-130%	
Bromodichloromethane	Standard	20.0	19.1	µg/L	96%		9805-99	1	80-120%	
Bromodichloromethane	Standard	20.0	19.9	µg/L	99%		9805-99	1	80-120%	
Bromodichloromethane	Standard	40.0	41.2	µg/L	103%		9805-100	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9804-502	1		
Bromoform	Matrix Spike	40.0	40.1	µg/L	100%		9804-456	1		
Bromoform	Method Blank		ND*	µg/L			9805-97	1		
Bromoform	Secondary Source Std	20.0	19.8	µg/L	99%		9805-98	1	70-130%	
Bromoform	Standard	20.0	19.2	µg/L	96%		9805-99	1	80-120%	
Bromoform	Standard	20.0	18.0	µg/L	90%		9805-99	1	80-120%	
Bromoform	Standard	40.0	38.4	µg/L	96%		9805-100	1	80-120%	
Chloroform	Duplicate	4.8	4.9	µg/L		2.1%	9804-502	1		
Chloroform	Matrix Spike	40.0	41.7	µg/L	104%		9804-456	1		
Chloroform	Method Blank		ND*	µg/L			9805-97	1		
Chloroform	Secondary Source Std	20.0	20.4	µg/L	102%		9805-98	1	70-130%	
Chloroform	Standard	20.0	18.8	µg/L	94%		9805-99	1	80-120%	
Chloroform	Standard	20.0	20.4	µg/L	102%		9805-99	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Standard	40.0	41.0	µg/L	102%		9805-100	1	80-120%
Dibromochloromethane	Duplicate	ND	ND	µg/L		NA	9804-502	1	
Dibromochloromethane	Matrix Spike	40.0	42.2	µg/L	106%		9804-456	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9805-97	1	
Dibromochloromethane	Secondary Source Std	20.0	19.9	µg/L	99%		9805-98	1	70-130%
Dibromochloromethane	Standard	20.0	19.1	µg/L	96%		9805-99	1	80-120%
Dibromochloromethane	Standard	20.0	19.9	µg/L	99%		9805-99	1	80-120%
Dibromochloromethane	Standard	40.0	41.4	µg/L	103%		9805-100	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-125-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	ND	ND	µg/L		NA	9805-24	1		
Bromodichloromethane	Matrix Spike	40.0	39.3	µg/L	98%		9805-53	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9805-154	1		
Bromodichloromethane	Secondary Source Std	20.0	21.7	µg/L	109%		9805-155	1	70-130%	
Bromodichloromethane	Standard	20.0	20.4	µg/L	102%		9805-156	1	80-120%	
Bromodichloromethane	Standard	20.0	21.6	µg/L	108%		9805-156	1	80-120%	
Bromodichloromethane	Standard	40.0	42.1	µg/L	105%		9805-157	1	80-120%	
Bromoform	Duplicate	6.8	7.0	µg/L		2.9%	9805-24	1		
Bromoform	Matrix Spike	40.0	35.2	µg/L	88%		9805-53	1		
Bromoform	Method Blank		ND*	µg/L			9805-154	1		
Bromoform	Secondary Source Std	20.0	20.9	µg/L	104%		9805-155	1	70-130%	
Bromoform	Standard	20.0	20.5	µg/L	102%		9805-156	1	80-120%	
Bromoform	Standard	20.0	19.5	µg/L	97%		9805-156	1	80-120%	
Bromoform	Standard	40.0	37.8	µg/L	94%		9805-157	1	80-120%	
Chloroform	Duplicate	ND	ND	µg/L		NA	9805-24	1		
Chloroform	Matrix Spike	40.0	41.1	µg/L	103%		9805-53	1		
Chloroform	Method Blank		ND*	µg/L			9805-154	1		
Chloroform	Secondary Source Std	20.0	22.6	µg/L	113%		9805-155	1	70-130%	
Chloroform	Standard	20.0	20.5	µg/L	102%		9805-156	1	80-120%	
Chloroform	Standard	20.0	22.6	µg/L	113%		9805-156	1	80-120%	
Chloroform	Standard	40.0	43.2	µg/L	108%		9805-157	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Dibromochloromethane	Duplicate	3.1	3.2	µg/L		3.2%	9805-24	1	
Dibromochloromethane	Matrix Spike	40.0	38.9	µg/L	97%		9805-53	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9805-154	1	
Dibromochloromethane	Secondary Source Std	20.0	21.2	µg/L	106%		9805-155	1	70-130%
Dibromochloromethane	Standard	20.0	20.7	µg/L	103%		9805-156	1	80-120%
Dibromochloromethane	Standard	20.0	21.7	µg/L	109%		9805-156	1	80-120%
Dibromochloromethane	Standard	40.0	42.6	µg/L	106%		9805-157	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-128-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	2.8	2.8	µg/L		0.0%	9805-106	1		
Bromodichloromethane	Matrix Spike	40.0	44.2	µg/L	111%		9805-139	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9805-297	1		
Bromodichloromethane	Secondary Source Std	20.0	21.2	µg/L	106%		9805-298	1	70-130%	
Bromodichloromethane	Standard	20.0	20.5	µg/L	102%		9805-299	1	80-120%	
Bromodichloromethane	Standard	20.0	22.2	µg/L	111%		9805-299	1	80-120%	
Bromodichloromethane	Standard	20.0	22.6	µg/L	113%		9805-299	1	80-120%	
Bromodichloromethane	Standard	40.0	40.7	µg/L	102%		9805-300	1	80-120%	
Bromodichloromethane	Standard	40.0	42.8	µg/L	107%		9805-300	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9805-106	1		
Bromoform	Matrix Spike	40.0	40.2	µg/L	101%		9805-139	1		
Bromoform	Method Blank		ND*	µg/L			9805-297	1		
Bromoform	Secondary Source Std	20.0	20.0	µg/L	100%		9805-298	1	70-130%	
Bromoform	Standard	20.0	21.0	µg/L	105%		9805-299	1	80-120%	
Bromoform	Standard	20.0	20.2	µg/L	101%		9805-299	1	80-120%	
Bromoform	Standard	20.0	23.1	µg/L	116%		9805-299	1	80-120%	
Bromoform	Standard	40.0	40.9	µg/L	102%		9805-300	1	80-120%	
Bromoform	Standard	40.0	44.7	µg/L	112%		9805-300	1	80-120%	
Chloroform	Duplicate	2.9	3.0	µg/L		3.4%	9805-106	1		
Chloroform	Matrix Spike	40.0	44.9	µg/L	112%		9805-139	1		
Chloroform	Method Blank		ND*	µg/L			9805-297	1		
Chloroform	Secondary Source Std	20.0	21.5	µg/L	108%		9805-298	1	70-130%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Standard	20.0	20.2	µg/L	101%		9805-299	1	80-120%
Chloroform	Standard	20.0	22.4	µg/L	112%		9805-299	1	80-120%
Chloroform	Standard	20.0	21.6	µg/L	108%		9805-299	1	80-120%
Chloroform	Standard	40.0	40.3	µg/L	101%		9805-300	1	80-120%
Chloroform	Standard	40.0	43.8	µg/L	110%		9805-300	1	80-120%
Dibromochloromethane	Duplicate	1.6	1.6	µg/L		0.0%	9805-106	1	
Dibromochloromethane	Matrix Spike	40.0	46.8	µg/L	117%		9805-139	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9805-297	1	
Dibromochloromethane	Secondary Source Std	20.0	20.1	µg/L	101%		9805-298	1	70-130%
Dibromochloromethane	Standard	20.0	21.1	µg/L	106%		9805-299	1	80-120%
Dibromochloromethane	Standard	20.0	22.6	µg/L	113%		9805-299	1	80-120%
Dibromochloromethane	Standard	20.0	23.3	µg/L	117%		9805-299	1	80-120%
Dibromochloromethane	Standard	40.0	41.2	µg/L	103%		9805-300	1	80-120%
Dibromochloromethane	Standard	40.0	43.3	µg/L	108%		9805-300	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-130-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	14.8	14.2	µg/L		4.1%	9805-214	1		
Bromodichloromethane	Matrix Spike	40.0	41.6	µg/L	104%		9805-261	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9805-437	1		
Bromodichloromethane	Secondary Source Std	20.0	21.0	µg/L	105%		9805-438	1	70-130%	
Bromodichloromethane	Standard	20.0	18.1	µg/L	91%		9805-439	1	80-120%	
Bromodichloromethane	Standard	20.0	19.4	µg/L	97%		9805-439	1	80-120%	
Bromodichloromethane	Standard	20.0	18.8	µg/L	94%		9805-439	1	80-120%	
Bromodichloromethane	Standard	40.0	41.4	µg/L	103%		9805-440	1	80-120%	
Bromodichloromethane	Standard	40.0	41.1	µg/L	103%		9805-440	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9805-214	1		
Bromoform	Matrix Spike	40.0	43.2	µg/L	108%		9805-261	1		
Bromoform	Method Blank		ND*	µg/L			9805-437	1		
Bromoform	Secondary Source Std	20.0	20.4	µg/L	102%		9805-438	1	70-130%	
Bromoform	Standard	20.0	17.6	µg/L	88%		9805-439	1	80-120%	
Bromoform	Standard	20.0	20.2	µg/L	101%		9805-439	1	80-120%	
Bromoform	Standard	20.0	19.3	µg/L	97%		9805-439	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Bromoform	Standard	40.0	39.8	µg/L	99%		9805-440	1	80-120%
Bromoform	Standard	40.0	43.0	µg/L	108%		9805-440	1	80-120%
Chloroform	Duplicate	42.1	40.0	µg/L		5.1%	9805-214	1	
Chloroform	Matrix Spike	40.0	42.4	µg/L	106%		9805-261	1	
Chloroform	Method Blank		ND*	µg/L			9805-437	1	
Chloroform	Secondary Source Std	20.0	20.9	µg/L	104%		9805-438	1	70-130%
Chloroform	Standard	20.0	18.1	µg/L	91%		9805-439	1	80-120%
Chloroform	Standard	20.0	19.5	µg/L	97%		9805-439	1	80-120%
Chloroform	Standard	20.0	19.4	µg/L	97%		9805-439	1	80-120%
Chloroform	Standard	40.0	41.5	µg/L	104%		9805-440	1	80-120%
Chloroform	Standard	40.0	42.3	µg/L	106%		9805-440	1	80-120%
Dibromochloromethane	Duplicate	3.8	3.6	µg/L		5.4%	9805-214	1	
Dibromochloromethane	Matrix Spike	40.0	42.4	µg/L	106%		9805-261	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9805-437	1	
Dibromochloromethane	Secondary Source Std	20.0	20.9	µg/L	104%		9805-438	1	70-130%
Dibromochloromethane	Standard	20.0	18.9	µg/L	94%		9805-439	1	80-120%
Dibromochloromethane	Standard	20.0	20.0	µg/L	100%		9805-439	1	80-120%
Dibromochloromethane	Standard	20.0	19.0	µg/L	95%		9805-439	1	80-120%
Dibromochloromethane	Standard	40.0	41.7	µg/L	104%		9805-440	1	80-120%
Dibromochloromethane	Standard	40.0	40.5	µg/L	101%		9805-440	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-136-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	3.2	3.0	µg/L		6.5%	9805-309	1		
Bromodichloromethane	Matrix Spike	40.0	39.1	µg/L	98%		9805-353	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9805-491	1		
Bromodichloromethane	Secondary Source Std	20.0	21.7	µg/L	109%		9805-492	1	70-130%	
Bromodichloromethane	Standard	20.0	20.2	µg/L	101%		9805-493	1	80-120%	
Bromodichloromethane	Standard	20.0	19.5	µg/L	97%		9805-493	1	80-120%	
Bromodichloromethane	Standard	40.0	42.2	µg/L	106%		9805-494	1	80-120%	
Bromoform	Duplicate	18.5	16.9	µg/L		9.0%	9805-309	1		
Bromoform	Matrix Spike	40.0	36.5	µg/L	91%		9805-353	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Bromoform	Method Blank		ND*	µg/L			9805-491	1	
Bromoform	Secondary Source Std	20.0	20.6	µg/L	103%		9805-492	1	70-130%
Bromoform	Standard	20.0	19.8	µg/L	99%		9805-493	1	80-120%
Bromoform	Standard	20.0	18.1	µg/L	91%		9805-493	1	80-120%
Bromoform	Standard	40.0	38.2	µg/L	96%		9805-494	1	80-120%
Chloroform	Duplicate	ND	ND	µg/L		NA	9805-309	1	
Chloroform	Matrix Spike	40.0	42.8	µg/L	107%		9805-353	1	
Chloroform	Method Blank		ND*	µg/L			9805-491	1	
Chloroform	Secondary Source Std	20.0	21.6	µg/L	108%		9805-492	1	70-130%
Chloroform	Standard	20.0	19.6	µg/L	98%		9805-493	1	80-120%
Chloroform	Standard	20.0	19.0	µg/L	95%		9805-493	1	80-120%
Chloroform	Standard	40.0	42.9	µg/L	107%		9805-494	1	80-120%
Dibromochloromethane	Duplicate	13.4	12.4	µg/L		7.8%	9805-309	1	
Dibromochloromethane	Matrix Spike	40.0	39.2	µg/L	98%		9805-353	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9805-491	1	
Dibromochloromethane	Secondary Source Std	20.0	21.0	µg/L	105%		9805-492	1	70-130%
Dibromochloromethane	Standard	20.0	20.4	µg/L	102%		9805-493	1	80-120%
Dibromochloromethane	Standard	20.0	19.8	µg/L	99%		9805-493	1	80-120%
Dibromochloromethane	Standard	40.0	42.7	µg/L	107%		9805-494	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-139-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	5.9	6.2	µg/L		5.0%	9805-417	1		
Bromodichloromethane	Matrix Spike	40.0	43.2	µg/L	108%		9805-454	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9806-102	1		
Bromodichloromethane	Secondary Source Std	50.0	48.3	µg/L	97%		9806-103	1	70-130%	
Bromodichloromethane	Standard	20.0	20.6	µg/L	103%		9806-104	1	80-120%	
Bromodichloromethane	Standard	20.0	20.0	µg/L	100%		9806-104	1	80-120%	
Bromodichloromethane	Standard	40.0	40.7	µg/L	102%		9806-105	1	80-120%	
Bromodichloromethane	Standard	40.0	40.4	µg/L	101%		9806-105	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9805-417	1		
Bromoform	Matrix Spike	40.0	39.4	µg/L	98%		9805-454	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Bromoform	Method Blank		ND*	µg/L			9806-102	1	
Bromoform	Secondary Source Std	50.0	48.2	µg/L	96%		9806-103	1	70-130%
Bromoform	Standard	20.0	20.7	µg/L	103%		9806-104	1	80-120%
Bromoform	Standard	20.0	20.6	µg/L	103%		9806-104	1	80-120%
Bromoform	Standard	40.0	40.6	µg/L	102%		9806-105	1	80-120%
Bromoform	Standard	40.0	42.6	µg/L	106%		9806-105	1	80-120%
Chloroform	Duplicate	10.8	11.2	µg/L		3.6%	9805-417	1	
Chloroform	Matrix Spike	40.0	43.3	µg/L	108%		9805-454	1	
Chloroform	Method Blank		ND*	µg/L			9806-102	1	
Chloroform	Secondary Source Std	50.0	51.3	µg/L	103%		9806-103	1	70-130%
Chloroform	Standard	20.0	20.1	µg/L	101%		9806-104	1	80-120%
Chloroform	Standard	20.0	19.3	µg/L	97%		9806-104	1	80-120%
Chloroform	Standard	40.0	40.2	µg/L	101%		9806-105	1	80-120%
Chloroform	Standard	40.0	39.9	µg/L	100%		9806-105	1	80-120%
Dibromochloromethane	Duplicate	1.9	1.9	µg/L		0.0%	9805-417	1	
Dibromochloromethane	Matrix Spike	40.0	35.7	µg/L	89%		9805-454	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9806-102	1	
Dibromochloromethane	Secondary Source Std	50.0	47.2	µg/L	94%		9806-103	1	70-130%
Dibromochloromethane	Standard	20.0	20.6	µg/L	103%		9806-104	1	80-120%
Dibromochloromethane	Standard	20.0	19.9	µg/L	99%		9806-104	1	80-120%
Dibromochloromethane	Standard	40.0	41.0	µg/L	102%		9806-105	1	80-120%
Dibromochloromethane	Standard	40.0	40.8	µg/L	102%		9806-105	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-121-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	4.9	4.6	µg/L		6.3%	9804-369	1		
Bromochloroacetic acid	Matrix Spike	40.0	38.3	µg/L	96%		9804-387	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9805-84	1		
Bromochloroacetic acid	Secondary Source Std	20.0	23.9	µg/L	119%		9805-85	1	70-130%	
Bromochloroacetic acid	Standard	20.0	21.3	µg/L	106%		9805-86	1	80-120%	
Bromochloroacetic acid	Standard	20.0	20.8	µg/L	104%		9805-86	1	80-120%	
Bromochloroacetic acid	Standard	40.0	37.3	µg/L	93%		9805-87	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Bromodichloroacetic acid	Duplicate	2.3	2.3	µg/L	0.0%	9804-369	1	
Bromodichloroacetic acid	Matrix Spike	40.0	46.7	µg/L	117%	9804-387	1	
Bromodichloroacetic acid	Method Blank		ND*	µg/L		9805-84	1	
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L		9805-85	1	
Bromodichloroacetic acid	Standard	20.0	23.4	µg/L	117%	9805-86	1	80-120%
Bromodichloroacetic acid	Standard	20.0	23.5	µg/L	118%	9805-86	1	80-120%
Bromodichloroacetic acid	Standard	40.0	37.5	µg/L	94%	9805-87	1	80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L	NA	9804-369	2	
Chlorodibromoacetic acid	Matrix Spike	40.0	47.9	µg/L	120%	9804-387	2	
Chlorodibromoacetic acid	Method Blank		ND*	µg/L		9805-84	2	
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L		9805-85	2	
Chlorodibromoacetic acid	Standard	20.0	23.7	µg/L	119%	9805-86	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	23.7	µg/L	119%	9805-86	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	37.6	µg/L	94%	9805-87	2	80-120%
Dibromoacetic acid	Duplicate	3.5	3.4	µg/L	2.9%	9804-369	1	
Dibromoacetic acid	Matrix Spike	40.0	41.0	µg/L	102%	9804-387	1	
Dibromoacetic acid	Method Blank		ND*	µg/L		9805-84	1	
Dibromoacetic acid	Secondary Source Std	20.0	24.5	µg/L	123%	9805-85	1	70-130%
Dibromoacetic acid	Standard	20.0	22.0	µg/L	110%	9805-86	1	80-120%
Dibromoacetic acid	Standard	20.0	21.9	µg/L	110%	9805-86	1	80-120%
Dibromoacetic acid	Standard	40.0	38.5	µg/L	96%	9805-87	1	80-120%
Dichloroacetic acid	Duplicate	7.1	6.6	µg/L	7.3%	9804-369	1	
Dichloroacetic acid	Matrix Spike	40.0	36.2	µg/L	91%	9804-387	1	
Dichloroacetic acid	Method Blank		ND*	µg/L		9805-84	1	
Dichloroacetic acid	Secondary Source Std	20.0	24.0	µg/L	120%	9805-85	1	70-130%
Dichloroacetic acid	Standard	20.0	21.4	µg/L	107%	9805-86	1	80-120%
Dichloroacetic acid	Standard	20.0	21.4	µg/L	107%	9805-86	1	80-120%
Dichloroacetic acid	Standard	40.0	37.1	µg/L	93%	9805-87	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND	µg/L	NA	9804-369	1	
Monobromoacetic acid	Matrix Spike	40.0	35.6	µg/L	89%	9804-387	1	
Monobromoacetic acid	Method Blank		ND*	µg/L		9805-84	1	
Monobromoacetic acid	Secondary Source Std	20.0	24.6	µg/L	123%	9805-85	1	70-130%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Monobromoacetic acid	Standard	20.0	20.2 µg/L	101%		9805-86	1	80-120%
Monobromoacetic acid	Standard	20.0	19.7 µg/L	98%		9805-86	1	80-120%
Monobromoacetic acid	Standard	40.0	38.4 µg/L	96%		9805-87	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9804-369	2	
Monochloroacetic acid	Matrix Spike	40.0	36.2 µg/L	91%		9804-387	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9805-84	2	
Monochloroacetic acid	Secondary Source Std	20.0	20.3 µg/L	102%		9805-85	2	70-130%
Monochloroacetic acid	Standard	20.0	20.8 µg/L	104%		9805-86	2	80-120%
Monochloroacetic acid	Standard	20.0	19.2 µg/L	96%		9805-86	2	80-120%
Monochloroacetic acid	Standard	40.0	37.8 µg/L	94%		9805-87	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9804-369	4	
Tribromoacetic acid	Matrix Spike	40.0	49.3 µg/L	123%		9804-387	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9805-84	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9805-85	4	
Tribromoacetic acid	Standard	20.0	23.4 µg/L	117%		9805-86	4	80-120%
Tribromoacetic acid	Standard	20.0	23.7 µg/L	119%		9805-86	4	80-120%
Tribromoacetic acid	Standard	40.0	36.8 µg/L	92%		9805-87	4	80-120%
Trichloroacetic acid	Duplicate	3.1	3.3 µg/L		6.2%	9804-369	1	
Trichloroacetic acid	Matrix Spike	40.0	43.5 µg/L	109%		9804-387	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9805-84	1	
Trichloroacetic acid	Secondary Source Std	20.0	25.7 µg/L	128%		9805-85	1	70-130%
Trichloroacetic acid	Standard	20.0	22.8 µg/L	114%		9805-86	1	80-120%
Trichloroacetic acid	Standard	20.0	22.9 µg/L	115%		9805-86	1	80-120%
Trichloroacetic acid	Standard	40.0	37.2 µg/L	93%		9805-87	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-123-0

								Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	1.5	1.6	µg/L		6.5%	9804-453	1		
Bromochloroacetic acid	Matrix Spike	40.0	40.9	µg/L	102%		9804-507	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9805-129	1		
Bromochloroacetic acid	Secondary Source Std	20.0	20.5	µg/L	102%		9805-130	1	70-130%	
Bromochloroacetic acid	Standard	20.0	20.6	µg/L	103%		9805-131	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Bromochloroacetic acid	Standard	20.0	20.9 µg/L	104%		9805-131	1	80-120%
Bromochloroacetic acid	Standard	40.0	40.5 µg/L	101%		9805-132	1	80-120%
Bromodichloroacetic acid	Duplicate	1.5	1.5 µg/L		0.0%	9804-453	1	
Bromodichloroacetic acid	Matrix Spike	40.0	43.3 µg/L	108%		9804-507	1	
Bromodichloroacetic acid	Method Blank		ND* µg/L			9805-129	1	
Bromodichloroacetic acid	Secondary Source Std		ND µg/L			9805-130	1	
Bromodichloroacetic acid	Standard	20.0	20.6 µg/L	103%		9805-131	1	80-120%
Bromodichloroacetic acid	Standard	20.0	20.3 µg/L	102%		9805-131	1	80-120%
Bromodichloroacetic acid	Standard	40.0	40.8 µg/L	102%		9805-132	1	80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND µg/L		NA	9804-453	2	
Chlorodibromoacetic acid	Matrix Spike	40.0	42.8 µg/L	107%		9804-507	2	
Chlorodibromoacetic acid	Method Blank		ND* µg/L			9805-129	2	
Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9805-130	2	
Chlorodibromoacetic acid	Standard	20.0	20.9 µg/L	104%		9805-131	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	20.5 µg/L	102%		9805-131	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	41.1 µg/L	103%		9805-132	2	80-120%
Dibromoacetic acid	Duplicate	ND	ND µg/L		NA	9804-453	1	
Dibromoacetic acid	Matrix Spike	40.0	42.7 µg/L	107%		9804-507	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9805-129	1	
Dibromoacetic acid	Secondary Source Std	20.0	21.4 µg/L	107%		9805-130	1	70-130%
Dibromoacetic acid	Standard	20.0	20.8 µg/L	104%		9805-131	1	80-120%
Dibromoacetic acid	Standard	20.0	21.4 µg/L	107%		9805-131	1	80-120%
Dibromoacetic acid	Standard	40.0	41.0 µg/L	102%		9805-132	1	80-120%
Dichloroacetic acid	Duplicate	8.9	9.2 µg/L		3.3%	9804-453	1	
Dichloroacetic acid	Matrix Spike	40.0	40.5 µg/L	101%		9804-507	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9805-129	1	
Dichloroacetic acid	Secondary Source Std	20.0	22.4 µg/L	112%		9805-130	1	70-130%
Dichloroacetic acid	Standard	20.0	21.5 µg/L	108%		9805-131	1	80-120%
Dichloroacetic acid	Standard	20.0	21.5 µg/L	108%		9805-131	1	80-120%
Dichloroacetic acid	Standard	40.0	40.2 µg/L	101%		9805-132	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9804-453	1	
Monobromoacetic acid	Matrix Spike	40.0	40.4 µg/L	101%		9804-507	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9805-129	1	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Monobromoacetic acid	Secondary Source Std	20.0	17.4 µg/L	87%		9805-130	1	70-130%
Monobromoacetic acid	Standard	20.0	21.5 µg/L	108%		9805-131	1	80-120%
Monobromoacetic acid	Standard	20.0	22.1 µg/L	111%		9805-131	1	80-120%
Monobromoacetic acid	Standard	40.0	38.5 µg/L	96%		9805-132	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9804-453	2	
Monochloroacetic acid	Matrix Spike	40.0	37.5 µg/L	94%		9804-507	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9805-129	2	
Monochloroacetic acid	Secondary Source Std	20.0	19.0 µg/L	95%		9805-130	2	70-130%
Monochloroacetic acid	Standard	20.0	21.5 µg/L	108%		9805-131	2	80-120%
Monochloroacetic acid	Standard	20.0	18.8 µg/L	94%		9805-131	2	80-120%
Monochloroacetic acid	Standard	40.0	38.3 µg/L	96%		9805-132	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9804-453	4	
Tribromoacetic acid	Matrix Spike	40.0	40.9 µg/L	102%		9804-507	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9805-129	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9805-130	4	
Tribromoacetic acid	Standard	20.0	21.0 µg/L	105%		9805-131	4	80-120%
Tribromoacetic acid	Standard	20.0	19.9 µg/L	99%		9805-131	4	80-120%
Tribromoacetic acid	Standard	40.0	40.3 µg/L	101%		9805-132	4	80-120%
Trichloroacetic acid	Duplicate	6.8	7.0 µg/L		2.9%	9804-453	1	
Trichloroacetic acid	Matrix Spike	40.0	42.5 µg/L	106%		9804-507	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9805-129	1	
Trichloroacetic acid	Secondary Source Std	20.0	23.6 µg/L	118%		9805-130	1	70-130%
Trichloroacetic acid	Standard	20.0	20.5 µg/L	102%		9805-131	1	80-120%
Trichloroacetic acid	Standard	20.0	20.1 µg/L	101%		9805-131	1	80-120%
Trichloroacetic acid	Standard	40.0	40.4 µg/L	101%		9805-132	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-127-0

								Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	3.8	3.6	µg/L		5.4%	9805-29	1		
Bromochloroacetic acid	Matrix Spike	40.0	40.5	µg/L	101%		9805-57	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9805-97	1		
Bromochloroacetic acid	Secondary Source Std	20.0	19.5	µg/L	97%		9805-98	1	70-130%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Bromochloroacetic acid	Standard	20.0	20.2 µg/L	101%		9805-99	1	80-120%
Bromochloroacetic acid	Standard	20.0	20.4 µg/L	102%		9805-99	1	80-120%
Bromochloroacetic acid	Standard	40.0	41.5 µg/L	104%		9805-100	1	80-120%
Bromodichloroacetic acid	Duplicate	ND	ND µg/L		NA	9805-29	1	
Bromodichloroacetic acid	Matrix Spike	40.0	36.9 µg/L	92%		9805-57	1	
Bromodichloroacetic acid	Method Blank		ND* µg/L			9805-97	1	
Bromodichloroacetic acid	Secondary Source Std		ND µg/L			9805-98	1	
Bromodichloroacetic acid	Standard	20.0	20.6 µg/L	103%		9805-99	1	80-120%
Bromodichloroacetic acid	Standard	20.0	19.5 µg/L	97%		9805-99	1	80-120%
Bromodichloroacetic acid	Standard	40.0	45.1 µg/L	113%		9805-100	1	80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-29	2	
Chlorodibromoacetic acid	Matrix Spike	40.0	34.1 µg/L	85%		9805-57	2	
Chlorodibromoacetic acid	Method Blank		ND* µg/L			9805-97	2	
Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9805-98	2	
Chlorodibromoacetic acid	Standard	20.0	20.4 µg/L	102%		9805-99	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	18.2 µg/L	91%		9805-99	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	43.4 µg/L	109%		9805-100	2	80-120%
Dibromoacetic acid	Duplicate	4.5	4.3 µg/L		4.5%	9805-29	1	
Dibromoacetic acid	Matrix Spike	40.0	41.4 µg/L	103%		9805-57	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9805-97	1	
Dibromoacetic acid	Secondary Source Std	20.0	20.5 µg/L	102%		9805-98	1	70-130%
Dibromoacetic acid	Standard	20.0	20.3 µg/L	102%		9805-99	1	80-120%
Dibromoacetic acid	Standard	20.0	21.0 µg/L	105%		9805-99	1	80-120%
Dibromoacetic acid	Standard	40.0	43.9 µg/L	110%		9805-100	1	80-120%
Dichloroacetic acid	Duplicate	7.9	7.5 µg/L		5.2%	9805-29	1	
Dichloroacetic acid	Matrix Spike	40.0	39.5 µg/L	99%		9805-57	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9805-97	1	
Dichloroacetic acid	Secondary Source Std	20.0	19.9 µg/L	99%		9805-98	1	70-130%
Dichloroacetic acid	Standard	20.0	19.9 µg/L	99%		9805-99	1	80-120%
Dichloroacetic acid	Standard	20.0	20.2 µg/L	101%		9805-99	1	80-120%
Dichloroacetic acid	Standard	40.0	39.5 µg/L	99%		9805-100	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-29	1	
Monobromoacetic acid	Matrix Spike	40.0	36.6 µg/L	92%		9805-57	1	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Monobromoacetic acid	Method Blank		ND*	µg/L			9805-97	1	
Monobromoacetic acid	Secondary Source Std	20.0	18.1	µg/L	91%		9805-98	1	70-130%
Monobromoacetic acid	Standard	20.0	19.4	µg/L	97%		9805-99	1	80-120%
Monobromoacetic acid	Standard	20.0	18.1	µg/L	91%		9805-99	1	80-120%
Monobromoacetic acid	Standard	40.0	37.1	µg/L	93%		9805-100	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND	µg/L		NA	9805-29	2	
Monochloroacetic acid	Matrix Spike	40.0	41.2	µg/L	103%		9805-57	2	
Monochloroacetic acid	Method Blank		ND*	µg/L			9805-97	2	
Monochloroacetic acid	Secondary Source Std	20.0	17.5	µg/L	88%		9805-98	2	70-130%
Monochloroacetic acid	Standard	20.0	19.1	µg/L	96%		9805-99	2	80-120%
Monochloroacetic acid	Standard	20.0	19.3	µg/L	97%		9805-99	2	80-120%
Monochloroacetic acid	Standard	40.0	35.1	µg/L	88%		9805-100	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND	µg/L		NA	9805-29	4	
Tribromoacetic acid	Matrix Spike	40.0	33.1	µg/L	83%		9805-57	4	
Tribromoacetic acid	Method Blank		ND*	µg/L			9805-97	4	
Tribromoacetic acid	Secondary Source Std		ND	µg/L			9805-98	4	
Tribromoacetic acid	Standard	20.0	20.2	µg/L	101%		9805-99	4	80-120%
Tribromoacetic acid	Standard	20.0	17.7	µg/L	89%		9805-99	4	80-120%
Tribromoacetic acid	Standard	40.0	40.8	µg/L	102%		9805-100	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9805-29	1	
Trichloroacetic acid	Matrix Spike	40.0	39.0	µg/L	97%		9805-57	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9805-97	1	
Trichloroacetic acid	Secondary Source Std	20.0	19.7	µg/L	98%		9805-98	1	70-130%
Trichloroacetic acid	Standard	20.0	20.0	µg/L	100%		9805-99	1	80-120%
Trichloroacetic acid	Standard	20.0	21.5	µg/L	108%		9805-99	1	80-120%
Trichloroacetic acid	Standard	40.0	45.6	µg/L	114%		9805-100	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-129-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	1.3	1.2	µg/L		8.0%	9805-118	1		
Bromochloroacetic acid	Matrix Spike	40.0	40.9	µg/L	102%		9805-158	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9805-413	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Study Title: ICR RSSCT #1

Bromochloroacetic acid	Secondary Source Std	20.0	18.7 µg/L	93%		9805-414	1 70-130%
Bromochloroacetic acid	Standard	20.0	19.3 µg/L	97%		9805-415	1 80-120%
Bromochloroacetic acid	Standard	20.0	19.3 µg/L	97%		9805-415	1 80-120%
Bromochloroacetic acid	Standard	40.0	38.3 µg/L	96%		9805-416	1 80-120%
Bromodichloroacetic acid	Duplicate	1.0	1.0 µg/L		0.0%	9805-118	1
Bromodichloroacetic acid	Matrix Spike	40.0	35.6 µg/L	89%		9805-158	1
Bromodichloroacetic acid	Method Blank		ND* µg/L			9805-413	1
Bromodichloroacetic acid	Secondary Source Std		ND µg/L			9805-414	1
Bromodichloroacetic acid	Standard	20.0	18.1 µg/L	91%		9805-415	1 80-120%
Bromodichloroacetic acid	Standard	20.0	19.0 µg/L	95%		9805-415	1 80-120%
Bromodichloroacetic acid	Standard	40.0	38.5 µg/L	96%		9805-416	1 80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-118	2
Chlorodibromoacetic acid	Matrix Spike	40.0	35.2 µg/L	88%		9805-158	2
Chlorodibromoacetic acid	Method Blank		ND* µg/L			9805-413	2
Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9805-414	2
Chlorodibromoacetic acid	Standard	20.0	18.0 µg/L	90%		9805-415	2 80-120%
Chlorodibromoacetic acid	Standard	20.0	19.9 µg/L	99%		9805-415	2 80-120%
Chlorodibromoacetic acid	Standard	40.0	38.3 µg/L	96%		9805-416	2 80-120%
Dibromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-118	1
Dibromoacetic acid	Matrix Spike	40.0	38.3 µg/L	96%		9805-158	1
Dibromoacetic acid	Method Blank		ND* µg/L			9805-413	1
Dibromoacetic acid	Secondary Source Std	20.0	18.3 µg/L	92%		9805-414	1 70-130%
Dibromoacetic acid	Standard	20.0	19.0 µg/L	95%		9805-415	1 80-120%
Dibromoacetic acid	Standard	20.0	18.9 µg/L	94%		9805-415	1 80-120%
Dibromoacetic acid	Standard	40.0	37.7 µg/L	94%		9805-416	1 80-120%
Dichloroacetic acid	Duplicate	1.9	1.8 µg/L		5.4%	9805-118	1
Dichloroacetic acid	Matrix Spike	40.0	41.3 µg/L	103%		9805-158	1
Dichloroacetic acid	Method Blank		ND* µg/L			9805-413	1
Dichloroacetic acid	Secondary Source Std	20.0	20.0 µg/L	100%		9805-414	1 70-130%
Dichloroacetic acid	Standard	20.0	19.4 µg/L	97%		9805-415	1 80-120%
Dichloroacetic acid	Standard	20.0	19.5 µg/L	97%		9805-415	1 80-120%
Dichloroacetic acid	Standard	40.0	37.2 µg/L	93%		9805-416	1 80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Study Title: ICR RSSCT #1

Monobromoacetic acid	Duplicate	ND	ND	µg/L		NA	9805-118	1	
Monobromoacetic acid	Matrix Spike	40.0	39.4	µg/L	98%		9805-158	1	
Monobromoacetic acid	Method Blank		ND*	µg/L			9805-413	1	
Monobromoacetic acid	Secondary Source Std	20.0	19.2	µg/L	96%		9805-414	1	70-130%
Monobromoacetic acid	Standard	20.0	18.5	µg/L	93%		9805-415	1	80-120%
Monobromoacetic acid	Standard	20.0	18.7	µg/L	93%		9805-415	1	80-120%
Monobromoacetic acid	Standard	40.0	37.1	µg/L	93%		9805-416	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND	µg/L		NA	9805-118	2	
Monochloroacetic acid	Matrix Spike	40.0	40.2	µg/L	101%		9805-158	2	
Monochloroacetic acid	Method Blank		ND*	µg/L			9805-413	2	
Monochloroacetic acid	Secondary Source Std	20.0	18.1	µg/L	91%		9805-414	2	70-130%
Monochloroacetic acid	Standard	20.0	19.2	µg/L	96%		9805-415	2	80-120%
Monochloroacetic acid	Standard	20.0	19.4	µg/L	97%		9805-415	2	80-120%
Monochloroacetic acid	Standard	40.0	38.8	µg/L	97%		9805-416	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND	µg/L		NA	9805-118	4	
Tribromoacetic acid	Matrix Spike	40.0	35.1	µg/L	88%		9805-158	4	
Tribromoacetic acid	Method Blank		ND*	µg/L			9805-413	4	
Tribromoacetic acid	Secondary Source Std		ND	µg/L			9805-414	4	
Tribromoacetic acid	Standard	20.0	18.5	µg/L	93%		9805-415	4	80-120%
Tribromoacetic acid	Standard	20.0	20.3	µg/L	102%		9805-415	4	80-120%
Tribromoacetic acid	Standard	40.0	37.9	µg/L	95%		9805-416	4	80-120%
Trichloroacetic acid	Duplicate	1.2	1.2	µg/L		0.0%	9805-118	1	
Trichloroacetic acid	Matrix Spike	40.0	36.0	µg/L	90%		9805-158	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9805-413	1	
Trichloroacetic acid	Secondary Source Std	20.0	18.0	µg/L	90%		9805-414	1	70-130%
Trichloroacetic acid	Standard	20.0	19.2	µg/L	96%		9805-415	1	80-120%
Trichloroacetic acid	Standard	20.0	19.0	µg/L	95%		9805-415	1	80-120%
Trichloroacetic acid	Standard	40.0	38.0	µg/L	95%		9805-416	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-134-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	4.9	4.5	µg/L		8.5%	9805-278	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Bromochloroacetic acid	Matrix Spike	40.0	39.5 µg/L	99%		9805-176	1	
Bromochloroacetic acid	Method Blank		ND* µg/L			9805-483	1	
Bromochloroacetic acid	Secondary Source Std	20.0	21.2 µg/L	106%		9805-484	1	70-130%
Bromochloroacetic acid	Standard	20.0	21.6 µg/L	108%		9805-485	1	80-120%
Bromochloroacetic acid	Standard	20.0	21.7 µg/L	109%		9805-485	1	80-120%
Bromochloroacetic acid	Standard	40.0	37.8 µg/L	94%		9805-486	1	80-120%
Bromodichloroacetic acid	Duplicate	6.0	5.2 µg/L		14.3%	9805-278	1	
Bromodichloroacetic acid	Matrix Spike	40.0	39.1 µg/L	98%		9805-176	1	
Bromodichloroacetic acid	Method Blank		ND* µg/L			9805-483	1	
Bromodichloroacetic acid	Secondary Source Std		ND µg/L			9805-484	1	
Bromodichloroacetic acid	Standard	20.0	22.8 µg/L	114%		9805-485	1	80-120%
Bromodichloroacetic acid	Standard	20.0	23.0 µg/L	115%		9805-485	1	80-120%
Bromodichloroacetic acid	Standard	40.0	38.3 µg/L	96%		9805-486	1	80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-278	2	
Chlorodibromoacetic acid	Matrix Spike	40.0	40.5 µg/L	101%		9805-176	2	
Chlorodibromoacetic acid	Method Blank		ND* µg/L			9805-483	2	
Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9805-484	2	
Chlorodibromoacetic acid	Standard	20.0	23.0 µg/L	115%		9805-485	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	23.2 µg/L	116%		9805-485	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	39.5 µg/L	99%		9805-486	2	80-120%
Dibromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-278	1	
Dibromoacetic acid	Matrix Spike	40.0	39.8 µg/L	99%		9805-176	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9805-483	1	
Dibromoacetic acid	Secondary Source Std	20.0	22.8 µg/L	114%		9805-484	1	70-130%
Dibromoacetic acid	Standard	20.0	22.3 µg/L	112%		9805-485	1	80-120%
Dibromoacetic acid	Standard	20.0	22.4 µg/L	112%		9805-485	1	80-120%
Dibromoacetic acid	Standard	40.0	37.9 µg/L	95%		9805-486	1	80-120%
Dichloroacetic acid	Duplicate	22.7	21.2 µg/L		6.8%	9805-278	1	
Dichloroacetic acid	Matrix Spike	40.0	41.6 µg/L	104%		9805-176	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9805-483	1	
Dichloroacetic acid	Secondary Source Std	20.0	22.3 µg/L	112%		9805-484	1	70-130%
Dichloroacetic acid	Standard	20.0	21.2 µg/L	106%		9805-485	1	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Dichloroacetic acid	Standard	20.0	22.8 µg/L	114%		9805-485	1	80-120%
Dichloroacetic acid	Standard	40.0	40.4 µg/L	101%		9805-486	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-278	1	
Monobromoacetic acid	Matrix Spike	40.0	37.9 µg/L	95%		9805-176	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9805-483	1	
Monobromoacetic acid	Secondary Source Std	20.0	21.6 µg/L	108%		9805-484	1	70-130%
Monobromoacetic acid	Standard	20.0	19.4 µg/L	97%		9805-485	1	80-120%
Monobromoacetic acid	Standard	20.0	19.9 µg/L	99%		9805-485	1	80-120%
Monobromoacetic acid	Standard	40.0	39.5 µg/L	99%		9805-486	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9805-278	2	
Monochloroacetic acid	Matrix Spike	40.0	34.3 µg/L	86%		9805-176	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9805-483	2	
Monochloroacetic acid	Secondary Source Std	20.0	20.0 µg/L	100%		9805-484	2	70-130%
Monochloroacetic acid	Standard	20.0	19.0 µg/L	95%		9805-485	2	80-120%
Monochloroacetic acid	Standard	20.0	20.6 µg/L	103%		9805-485	2	80-120%
Monochloroacetic acid	Standard	40.0	38.0 µg/L	95%		9805-486	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-278	4	
Tribromoacetic acid	Matrix Spike	40.0	40.5 µg/L	101%		9805-176	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9805-483	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9805-484	4	
Tribromoacetic acid	Standard	20.0	21.6 µg/L	108%		9805-485	4	80-120%
Tribromoacetic acid	Standard	20.0	22.1 µg/L	111%		9805-485	4	80-120%
Tribromoacetic acid	Standard	40.0	38.3 µg/L	96%		9805-486	4	80-120%
Trichloroacetic acid	Duplicate	29.0	27.3 µg/L		6.0%	9805-278	1	
Trichloroacetic acid	Matrix Spike	40.0	36.9 µg/L	92%		9805-176	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9805-483	1	
Trichloroacetic acid	Secondary Source Std	20.0	22.7 µg/L	114%		9805-484	1	70-130%
Trichloroacetic acid	Standard	20.0	20.4 µg/L	102%		9805-485	1	80-120%
Trichloroacetic acid	Standard	20.0	20.5 µg/L	102%		9805-485	1	80-120%
Trichloroacetic acid	Standard	40.0	38.4 µg/L	96%		9805-486	1	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-138-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromochloroacetic acid	Duplicate	6.0	6.9	µg/L		14.0%	9805-317	1		
Bromochloroacetic acid	Matrix Spike	40.0	35.7	µg/L	89%		9805-349	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9806-93	1		
Bromochloroacetic acid	Secondary Source Std	20.0	18.4	µg/L	92%		9806-94	1	70-130%	
Bromochloroacetic acid	Standard	20.0	19.9	µg/L	99%		9806-95	1	80-120%	
Bromochloroacetic acid	Standard	20.0	18.2	µg/L	91%		9806-95	1	80-120%	
Bromochloroacetic acid	Standard	40.0	39.7	µg/L	99%		9806-96	1	80-120%	
Bromodichloroacetic acid	Duplicate	2.8	4.1	µg/L		37.7%	9805-317	1		
Bromodichloroacetic acid	Matrix Spike	40.0	33.4	µg/L	83%		9805-349	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9806-93	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9806-94	1		
Bromodichloroacetic acid	Standard	20.0	23.6	µg/L	118%		9806-95	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	23.0	µg/L	115%		9806-95	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	36.8	µg/L	92%		9806-96	1	80-120%	
Chlorodibromoacetic acid	Duplicate	5.0	7.5	µg/L		40.0%	9805-317	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	35.4	µg/L	89%		9805-349	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9806-93	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9806-94	2		
Chlorodibromoacetic acid	Standard	20.0	22.9	µg/L	115%		9806-95	2	80-120%	
Chlorodibromoacetic acid	Standard	20.0	21.5	µg/L	108%		9806-95	2	80-120%	
Chlorodibromoacetic acid	Standard	40.0	38.5	µg/L	96%		9806-96	2	80-120%	
Dibromoacetic acid	Duplicate	10.0	12.4	µg/L		21.4%	9805-317	1		
Dibromoacetic acid	Matrix Spike	40.0	34.7	µg/L	87%		9805-349	1		
Dibromoacetic acid	Method Blank		ND*	µg/L			9806-93	1		
Dibromoacetic acid	Secondary Source Std	20.0	18.6	µg/L	93%		9806-94	1	70-130%	
Dibromoacetic acid	Standard	20.0	21.1	µg/L	106%		9806-95	1	80-120%	
Dibromoacetic acid	Standard	20.0	22.3	µg/L	112%		9806-95	1	80-120%	
Dibromoacetic acid	Standard	40.0	38.7	µg/L	97%		9806-96	1	80-120%	
Dichloroacetic acid	Duplicate	3.1	3.6	µg/L		14.9%	9805-317	1		
Dichloroacetic acid	Matrix Spike	40.0	39.2	µg/L	98%		9805-349	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Dichloroacetic acid	Method Blank		ND* µg/L			9806-93	1	
Dichloroacetic acid	Secondary Source Std	20.0	19.0 µg/L	95%		9806-94	1	70-130%
Dichloroacetic acid	Standard	20.0	20.9 µg/L	104%		9806-95	1	80-120%
Dichloroacetic acid	Standard	20.0	20.3 µg/L	102%		9806-95	1	80-120%
Dichloroacetic acid	Standard	40.0	42.2 µg/L	106%		9806-96	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9805-317	1	
Monobromoacetic acid	Matrix Spike	40.0	43.6 µg/L	109%		9805-349	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9806-93	1	
Monobromoacetic acid	Secondary Source Std	20.0	19.0 µg/L	95%		9806-94	1	70-130%
Monobromoacetic acid	Standard	20.0	20.5 µg/L	102%		9806-95	1	80-120%
Monobromoacetic acid	Standard	20.0	18.9 µg/L	94%		9806-95	1	80-120%
Monobromoacetic acid	Standard	40.0	42.0 µg/L	105%		9806-96	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9805-317	2	
Monochloroacetic acid	Matrix Spike	40.0	44.8 µg/L	112%		9805-349	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9806-93	2	
Monochloroacetic acid	Secondary Source Std	20.0	18.1 µg/L	91%		9806-94	2	70-130%
Monochloroacetic acid	Standard	20.0	19.4 µg/L	97%		9806-95	2	80-120%
Monochloroacetic acid	Standard	20.0	18.8 µg/L	94%		9806-95	2	80-120%
Monochloroacetic acid	Standard	40.0	41.1 µg/L	103%		9806-96	2	80-120%
Tribromoacetic acid	Duplicate	3.9	6.0 µg/L		42.4%	9805-317	4	
Tribromoacetic acid	Matrix Spike	40.0	36.7 µg/L	92%		9805-349	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9806-93	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9806-94	4	
Tribromoacetic acid	Standard	20.0	22.1 µg/L	111%		9806-95	4	80-120%
Tribromoacetic acid	Standard	20.0	22.3 µg/L	112%		9806-95	4	80-120%
Tribromoacetic acid	Standard	40.0	37.7 µg/L	94%		9806-96	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND µg/L		NA	9805-317	1	
Trichloroacetic acid	Matrix Spike	40.0	28.9 µg/L	72%		9805-349	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9806-93	1	
Trichloroacetic acid	Secondary Source Std	20.0	17.7 µg/L	89%		9806-94	1	70-130%
Trichloroacetic acid	Standard	20.0	23.1 µg/L	116%		9806-95	1	80-120%
Trichloroacetic acid	Standard	20.0	23.5 µg/L	118%		9806-95	1	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Trichloroacetic acid	Standard	40.0	36.7	µg/L	92%		9806-96	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-140-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	8.3	8.1	µg/L		2.4%	9805-402	1		
Bromochloroacetic acid	Matrix Spike	40.0	39.6	µg/L	99%		9805-455	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9806-180	1		
Bromochloroacetic acid	Standard	20.0	18.3	µg/L	92%		9806-182	1	80-120%	
Bromochloroacetic acid	Standard	40.0	36.0	µg/L	90%		9806-183	1	80-120%	
Bromochloroacetic acid	Standard	40.0	36.6	µg/L	92%		9806-183	1	80-120%	
Bromodichloroacetic acid	Duplicate	6.2	6.1	µg/L		1.6%	9805-402	1		
Bromodichloroacetic acid	Matrix Spike	40.0	38.8	µg/L	97%		9805-455	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9806-180	1		
Bromodichloroacetic acid	Standard	20.0	20.0	µg/L	100%		9806-182	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	37.2	µg/L	93%		9806-183	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	38.2	µg/L	96%		9806-183	1	80-120%	
Chlorodibromoacetic acid	Duplicate	8.3	9.0	µg/L		8.1%	9805-402	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	39.2	µg/L	98%		9805-455	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9806-180	2		
Chlorodibromoacetic acid	Standard	20.0	20.3	µg/L	102%		9806-182	2	80-120%	
Chlorodibromoacetic acid	Standard	40.0	37.7	µg/L	94%		9806-183	2	80-120%	
Chlorodibromoacetic acid	Standard	40.0	39.0	µg/L	97%		9806-183	2	80-120%	
Dibromoacetic acid	Duplicate	12.3	12.1	µg/L		1.6%	9805-402	1		
Dibromoacetic acid	Matrix Spike	40.0	39.3	µg/L	98%		9805-455	1		
Dibromoacetic acid	Method Blank		ND*	µg/L			9806-180	1		
Dibromoacetic acid	Standard	20.0	17.7	µg/L	89%		9806-182	1	80-120%	
Dibromoacetic acid	Standard	40.0	34.6	µg/L	86%		9806-183	1	80-120%	
Dibromoacetic acid	Standard	40.0	35.4	µg/L	89%		9806-183	1	80-120%	
Dichloroacetic acid	Duplicate	4.0	4.1	µg/L		2.5%	9805-402	1		
Dichloroacetic acid	Matrix Spike	40.0	40.0	µg/L	100%		9805-455	1		
Dichloroacetic acid	Method Blank		ND*	µg/L			9806-180	1		
Dichloroacetic acid	Standard	20.0	20.4	µg/L	102%		9806-182	1	80-120%	
Dichloroacetic acid	Standard	40.0	38.5	µg/L	96%		9806-183	1	80-120%	
Dichloroacetic acid	Standard	40.0	39.5	µg/L	99%		9806-183	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

Monobromoacetic acid	Duplicate	1.1	1.2	µg/L		8.7%	9805-402	1
Monobromoacetic acid	Matrix Spike	40.0	39.8	µg/L	99%		9805-455	1
Monobromoacetic acid	Method Blank		ND*	µg/L			9806-180	1
Monobromoacetic acid	Standard	20.0	19.9	µg/L	99%		9806-182	1 80-120%
Monobromoacetic acid	Standard	40.0	38.0	µg/L	95%		9806-183	1 80-120%
Monobromoacetic acid	Standard	40.0	38.8	µg/L	97%		9806-183	1 80-120%
Monochloroacetic acid	Duplicate	ND	ND	µg/L		NA	9805-402	2
Monochloroacetic acid	Matrix Spike	40.0	40.5	µg/L	101%		9805-455	2
Monochloroacetic acid	Method Blank		ND*	µg/L			9806-180	2
Monochloroacetic acid	Standard	20.0	21.1	µg/L	106%		9806-182	2 80-120%
Monochloroacetic acid	Standard	40.0	43.4	µg/L	109%		9806-183	2 80-120%
Monochloroacetic acid	Standard	40.0	38.0	µg/L	95%		9806-183	2 80-120%
Tribromoacetic acid	Duplicate	4.4	4.8	µg/L		8.7%	9805-402	4
Tribromoacetic acid	Matrix Spike	40.0	42.4	µg/L	106%		9805-455	4
Tribromoacetic acid	Method Blank		ND*	µg/L			9806-180	4
Tribromoacetic acid	Standard	20.0	20.0	µg/L	100%		9806-182	4 80-120%
Tribromoacetic acid	Standard	40.0	38.3	µg/L	96%		9806-183	4 80-120%
Tribromoacetic acid	Standard	40.0	40.5	µg/L	101%		9806-183	4 80-120%
Trichloroacetic acid	Duplicate	1.4	1.5	µg/L		6.9%	9805-402	1
Trichloroacetic acid	Matrix Spike	40.0	36.9	µg/L	92%		9805-455	1
Trichloroacetic acid	Method Blank		ND*	µg/L			9806-180	1
Trichloroacetic acid	Standard	20.0	18.1	µg/L	91%		9806-182	1 80-120%
Trichloroacetic acid	Standard	40.0	33.3	µg/L	83%		9806-183	1 80-120%
Trichloroacetic acid	Standard	40.0	33.8	µg/L	84%		9806-183	1 80-120%

End of quality control report

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
Phone: (513) 679-2200
Fax: (513) 679-2201

QC Results from Montgomery Watson Laboratories

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Mr. Doug Robbins
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City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 103
Study Title: ICR RSSCT #1

QC Batch ID: 76928 **Report #:** 42488

Analysis: CA **Method:** EPA/ML 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	48.7	97.0%		(90 - 110)
LCS2	Calcium, Total, ICAP	50	48.6	97.0%		(90 - 110)
MS	Calcium, Total, ICAP	50	46.1	92.0%		(80 - 120)

QC Batch ID: 76929 **Report #:** 42488

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	19.5	98.0%		(80 - 120)
LCS2	Magnesium, Total, ICAP	20	19.7	98.0%		(80 - 120)
MS	Magnesium, Total, ICAP	20	19.2	96.0%		(80 - 120)

QC Batch ID: 77103 **Report #:** 42488

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	0.98	98.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	1.04	104.0%		(80 - 120)
MS	Ammonia Nitrogen	1	1.04	104.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	1.03	103.0%		(80 - 120)

QC Batch ID: 77255 **Report #:** 42488

Analysis: BR **Method:** ML/EPA 300

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Bromide	0.02	0.021	105.0%		(50 - 150)
LCS2	Bromide	0.1	0.1	100.0%		(90 - 110)
MS	Bromide	0.1	0.114	114.0%		(70 - 130)
MSD	Bromide	0.1	0.114	114.0%		(70 - 130)

QC Batch ID: 77529 **Report #:** 42901

Analysis: CA **Method:** EPA/ML 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	51.4	103.0%		(90 - 110)

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

QC Results from Montgomery Watson Laboratories

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

LCS2	Calcium, Total, ICAP	50	53.4	107.0%		(90 - 110)
MBLK	Calcium, Total, ICAP	ND	ND			
MS	Calcium, Total, ICAP	50	52.7	105.0%		(80 - 120)

QC Batch ID: 77530 **Report #:** 42901

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	19.4	97.0%		(80 - 120)
LCS2	Magnesium, Total, ICAP	20	20.1	100.0%		(80 - 120)
MBLK	Magnesium, Total, ICAP	ND	ND			
MS	Magnesium, Total, ICAP	20	19.5	98.0%		(80 - 120)

QC Batch ID: 77862 **Report #:** 42901

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	1.08	108.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	1.04	104.0%		(80 - 120)
MBLK	Ammonia Nitrogen	ND	ND			
MS	Ammonia Nitrogen	1	1.09	109.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	1.12	112.0%		(80 - 120)

QC Batch ID: 77961 **Report #:** 42901

Analysis: BR **Method:** ML/EPA 300

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Bromide	0.02	0.021	105.0%		(50 - 150)
LCS2	Bromide	0.1	0.1	100.0%		(90 - 110)
MBLK	Bromide	ND	ND			(70 - 130)
MS	Bromide	0.1	0.096	96.0%		(80 - 120)
MSD	Bromide	0.1	0.097	97.0%		(80 - 120)

QC Batch ID: 78108 **Report #:** 43014

Analysis: CA **Method:** EPA/ML 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	45.2	90.0%		(90 - 110)
LCS2	Calcium, Total, ICAP	50	49.7	99.0%		(90 - 110)
MBLK	Calcium, Total, ICAP	ND	ND			
MS	Calcium, Total, ICAP	50	45.2	90.0%		(80 - 120)

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

QC Results from Montgomery Watson Laboratories

Mr. Doug Robbins
City of Greensboro

Study#: 103
Study Title: ICR RSSCT #1

QC Batch ID: 78118 **Report #:** 43014

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	18.6	93.0%		(85 - 115)
LCS2	Magnesium, Total, ICAP	20	19.6	98.0%		(85 - 115)
MBLK	Magnesium, Total, ICAP	ND	ND			
MS	Magnesium, Total, ICAP	20	18	90.0%		(70 - 130)

QC Batch ID: 78267 **Report #:** 43014
43296

Analysis: BR **Method:** ML/EPA 300

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Bromide	0.02	0.02	100.0%		(50 - 150)
LCS2	Bromide	0.1	0.099	99.0%		(90 - 110)
MBLK	Bromide	ND	ND			(70 - 130)
MS	Bromide	0.1	0.095	95.0%		(80 - 120)
MSD	Bromide	0.1	0.094	94.0%		(80 - 120)

QC Batch ID: 78339 **Report #:** 43014

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	0.97	97.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	0.97	97.0%		(80 - 120)
MBLK	Ammonia Nitrogen	ND	ND			
MS	Ammonia Nitrogen	1	0.99	99.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	1	100.0%		(80 - 120)

End of MW QC report

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
Phone: (513) 679-2200
Fax: (513) 679-2201

Comments

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 103
Study Title: ICR RSSCT #1

Study comments

Samples 9804-385 and 9804-386 were chlorinated and held for only 6 hours instead of the SDS chlorination holding time of 24 hours. There was not enough of either sample left to redo the chlorination.

Analysis comments

Analysis: Turbidity
Method: SM 2130 B

Reported turbidity data has been rounded following the requirements of SM 2130 B, reproduced in the table below (Standard Methods, 1995). Note that the reported digits are not necessarily significant.

Turbidity Range	Report to Nearest
0-1.0	0.05
1-10	0.1
10-40	1
40-100	5
100-400	10
400-1000	50
> 1000	100

End of comments

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
Phone: (513) 679-2200
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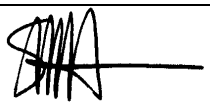
Laboratory Report

Client:

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study Title: ICR RSSCT #2
Study #: 122

Reviewed By: 
Stuart M. Hooper
Date Reviewed: 7/13/99

Electronic copies of the results and quality control data are available upon request.

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
Phone: (513) 679-2200
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Laboratory Test Results

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 122
Study Title: ICR RSSCT #2

Sample ID: 122.Settled.Day-1 **S&H ID:** 9806-418 **Date Sampled:** 6/16/98

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1	TOC-ICR	TOC	2.01	mg/L	SM 5310 C	1	0.50	6/16/98		6/16/98	7-0-298
2	TOC-ICR	TOC (Dupl)	2.03	mg/L	SM 5310 C	1	0.50	6/16/98		6/16/98	7-0-298
			2.02	**mg/L**	**1.0 % RPD**						

Sample ID: 122.Raw.Day-1 **S&H ID:** 9806-419 **Date Sampled:** 6/16/98

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
3	TOC-ICR	TOC	3.36	mg/L	SM 5310 C	1	0.50	6/16/98		6/16/98	7-0-298
4	TOC-ICR	TOC (Dupl)	3.36	mg/L	SM 5310 C	1	0.50	6/16/98		6/16/98	7-0-298
			3.36	**mg/L**	**0.0 % RPD**						

Sample ID: 122.Raw.Day2 **S&H ID:** 9806-444 **Date Sampled:** 6/16/98 10:10:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
5	TOC-ICR	TOC	3.24	mg/L	SM 5310 C	1	0.50	6/16/98		6/19/98	7-0-300
6	TOC-ICR	TOC (Dupl)	3.26	mg/L	SM 5310 C	1	0.50	6/16/98		6/19/98	7-0-300
			3.25	**mg/L**	**0.6 % RPD**						

Sample ID: 122.Settled.Barrel **S&H ID:** 9806-445 **Date Sampled:** 6/16/98 10:10:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
7	TOC-ICR	TOC	1.98	mg/L	SM 5310 C	1	0.50	6/16/98		6/19/98	7-0-300
8	TOC-ICR	TOC (Dupl)	1.99	mg/L	SM 5310 C	1	0.50	6/16/98		6/19/98	7-0-300
			1.98	**mg/L**	**0.5 % RPD**						

Sample ID: 122.Filtered.Day2 **S&H ID:** 9806-446 **Date Sampled:** 6/16/98 10:10:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
9	TOC-ICR	TOC	1.92	mg/L	SM 5310 C	1	0.50	6/16/98		6/19/98	7-0-300
10	TOC-ICR	TOC (Dupl)	1.89	mg/L	SM 5310 C	1	0.50	6/16/98		6/19/98	7-0-300
			1.90	**mg/L**	**1.6 % RPD**						

Sample ID: 122. Settled . On Arrival **S&H ID:** 9806-610 **Date Sampled:** 6/19/98 11:00:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
11	TOC-ICR	TOC	1.96	mg/L	SM 5310 C	1	0.50	6/19/98		6/20/98	7-0-301
12	TOC-ICR	TOC (Dupl)	1.98	mg/L	SM 5310 C	1	0.50	6/19/98		6/20/98	7-0-301
			1.97	**mg/L**	**1.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL).

NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Sample ID: 122. Filtered . Cartridge **S&H ID:** 9806-611 **Date Sampled:** 6/19/98 11:15:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
13	TOC-ICR	TOC	1.84	mg/L	SM 5310 C	1	0.50	6/19/98		6/20/98	7-0-301
14	TOC-ICR	TOC (Dupl)	1.85	mg/L	SM 5310 C	1	0.50	6/19/98		6/20/98	7-0-301
			1.85	**mg/L**	**0.5 % RPD**						

Sample ID: 122.10.Eff-1 **S&H ID:** 9806-618 **Date Sampled:** 6/20/98 7:03:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
15	Cl2Dose	Chlorine Dose	1.20	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/25/98		6/25/98	n/a
16	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/25/98		6/26/98	n/a
17	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.8	%	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
18	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.4	%	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
19	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
20	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
21	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/26/98	7/6/98	7/7/98	0-164-0
22	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
23	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
24	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
25	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/26/98	7/6/98	7/7/98	0-164-0
26	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	6/26/98	7/6/98	7/7/98	0-164-0
27	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
28	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/26/98	n/a
29	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/25/98	n/a
30	pH	pH	8.6	Unit	SM 4500-H+ B	1	n/a	6/20/98		6/20/98	n/a
31	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/25/98		6/26/98	n/a
32	TEMP	Temperature	25.4	ºC	SM 2550 B	1	n/a	6/20/98		6/20/98	n/a
33	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	6/25/98		6/26/98	n/a
34	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	6/20/98		6/21/98	7-0-302
35	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	6/20/98		6/21/98	7-0-302
			ND	**mg/L**							
36	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	6/26/98		6/30/98	12-0-158
37	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	6/26/98		6/30/98	12-0-158
			ND	**µg Cl-/L**							
38	THM-ICR	1,2,3-Trichloropropane (Surrogate)	97.6	%	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
39	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
40	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

41	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
42	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
43	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/20/98		6/21/98	8-0-205
44	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/20/98		6/21/98	8-0-205
			ND	**1/cm**							

Sample ID: 122.10.Eff-5 **S&H ID:** 9806-622 **Date Sampled:** 6/23/98 11:37:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
45	Cl2Dose	Chlorine Dose	1.27	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/25/98		6/25/98	n/a
46	Cl2Res	Chlorine Residual	0.91	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/25/98		6/26/98	n/a
47	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.4	%	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
48	HAA-ICR	2-Bromopropionic acid (Surrogate)	93.2	%	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
49	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
50	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
51	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/26/98	7/6/98	7/7/98	0-164-0
52	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
53	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
54	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
55	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/26/98	7/6/98	7/7/98	0-164-0
56	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	6/26/98	7/6/98	7/7/98	0-164-0
57	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
58	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/26/98	n/a
59	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/25/98	n/a
60	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	6/23/98		6/23/98	n/a
61	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/25/98		6/26/98	n/a
62	TEMP	Temperature	23.6	ºC	SM 2550 B	1	n/a	6/23/98		6/23/98	n/a
63	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	6/25/98		6/26/98	n/a
64	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	6/23/98		6/24/98	7-0-305
65	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	6/23/98		6/24/98	7-0-305
			ND	**mg/L**							
66	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	6/26/98		6/30/98	12-0-158
67	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	6/26/98		6/30/98	12-0-158
			ND	**µg Cl-/L**							
68	THM-ICR	1,2,3-Trichloropropane (Surrogate)	104.0	%	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
69	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
70	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
71	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
72	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

73	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/23/98	6/24/98	8-0-207
74	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/23/98	6/24/98	8-0-207
			ND	**1/cm**						

Sample ID: 122.10.Eff-6 **S&H ID:** 9806-623 **Date Sampled:** 6/24/98 1:37:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
75	Cl2Dose	Chlorine Dose	1.33	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/26/98		6/26/98	n/a
76	Cl2Res	Chlorine Residual	0.88	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/26/98		6/27/98	n/a
77	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.0	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
78	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.6	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
79	HAA-ICR	Bromochloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
80	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
81	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
82	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
83	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
84	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
85	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
86	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	6/27/98	7/9/98	7/9/98	0-170-0
87	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
88	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/27/98	n/a
89	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/26/98	n/a
90	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	6/24/98		6/24/98	n/a
91	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/26/98		6/27/98	n/a
92	TEMP	Temperature	23.2	ºC	SM 2550 B	1	n/a	6/24/98		6/24/98	n/a
93	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	6/26/98		6/27/98	n/a
94	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	6/24/98		6/24/98	7-0-305
95	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	6/24/98		6/24/98	7-0-305
			ND	**mg/L**							
96	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	6/27/98		7/2/98	12-0-160
97	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	6/27/98		7/2/98	12-0-160
			ND	**µg Cl-/L**							
98	THM-ICR	1,2,3-Trichloropropane (Surrogate)	97.2	%	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
99	THM-ICR	Bromodichloromethane	1.8	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
100	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
101	THM-ICR	Chloroform	1.3	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
102	THM-ICR	Dibromochloromethane	1.7	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Sample ID: 122.10.Eff-7 **S&H ID:** 9806-624 **Date Sampled:** 6/24/98 8:28:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
103	Cl2Dose	Chlorine Dose	1.47	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/26/98		6/26/98	n/a
104	Cl2Res	Chlorine Residual	0.92	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/26/98		6/27/98	n/a
105	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.8	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
106	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.4	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
107	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
108	HAA-ICR	Bromodichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
109	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
110	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
111	HAA-ICR	Dichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
112	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
113	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
114	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	6/27/98	7/9/98	7/9/98	0-170-0
115	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
116	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/27/98	n/a
117	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/26/98	n/a
118	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	6/24/98		6/24/98	n/a
119	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/26/98		6/27/98	n/a
120	TEMP	Temperature	25.8	ºC	SM 2550 B	1	n/a	6/24/98		6/24/98	n/a
121	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	6/26/98		6/27/98	n/a
122	TOC-ICR	TOC	0.53	mg/L	SM 5310 C	1	0.50	6/24/98		6/25/98	7-0-306
123	TOC-ICR	TOC (Dupl)	0.52	mg/L	SM 5310 C	1	0.50	6/24/98		6/25/98	7-0-306
			0.53	**mg/L**	**1.9 % RPD**						
124	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	6/27/98		7/2/98	12-0-160
125	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	6/27/98		7/2/98	12-0-160
			ND	**µg Cl-/L**							
126	THM-ICR	1,2,3-Trichloropropane (Surrogate)	97.6	%	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
127	THM-ICR	Bromodichloromethane	2.7	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
128	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
129	THM-ICR	Chloroform	2.1	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
130	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
131	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/24/98		6/26/98	8-0-208
132	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/24/98		6/26/98	8-0-208
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Sample ID: 122.10.Eff-9 **S&H ID:** 9806-626 **Date Sampled:** 6/25/98 10:47:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
133	Cl2Dose	Chlorine Dose	1.52	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/26/98		6/26/98	n/a
134	Cl2Res	Chlorine Residual	0.97	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/26/98		6/27/98	n/a
135	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.8	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
136	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
137	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
138	HAA-ICR	Bromodichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
139	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
140	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
141	HAA-ICR	Dichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
142	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
143	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
144	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	6/27/98	7/9/98	7/9/98	0-170-0
145	HAA-ICR	Trichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
146	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/27/98	n/a
147	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/26/98	n/a
148	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/25/98	n/a
149	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/26/98		6/27/98	n/a
150	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	6/25/98		6/25/98	n/a
151	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	6/26/98		6/27/98	n/a
152	TOC-ICR	TOC	0.61	mg/L	SM 5310 C	1	0.50	6/25/98		6/25/98	7-0-306
153	TOC-ICR	TOC (Dupl)	0.61	mg/L	SM 5310 C	1	0.50	6/25/98		6/25/98	7-0-306
			0.61	**mg/L**	**0.0 % RPD**						
154	TOX-ICR	TOX	28	µg Cl-/L	SM 5320 B	1	25	6/27/98		7/2/98	12-0-160
155	TOX-ICR	TOX (Dupl)	27	µg Cl-/L	SM 5320 B	1	25	6/27/98		7/2/98	12-0-160
			28	**µg Cl-/L**	**3.6 % RPD**						
156	THM-ICR	1,2,3-Trichloropropane (Surrogate)	101.2	%	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
157	THM-ICR	Bromodichloromethane	3.8	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
158	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
159	THM-ICR	Chloroform	3.2	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
160	THM-ICR	Dibromochloromethane	2.5	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
161	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/25/98		6/26/98	8-0-208
162	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/25/98		6/26/98	8-0-208
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Sample ID: 122.10.Eff-10 **S&H ID:** 9806-627 **Date Sampled:** 6/25/98 5:34:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
163	Cl2Dose	Chlorine Dose	1.61	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/30/98		6/30/98	n/a
164	Cl2Res	Chlorine Residual	0.96	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/30/98		7/1/98	n/a
165	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.2	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
166	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
167	HAA-ICR	Bromochloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
168	HAA-ICR	Bromodichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
169	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
170	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
171	HAA-ICR	Dichloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
172	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
173	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
174	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/1/98	7/9/98	7/10/98	0-170-0
175	HAA-ICR	Trichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
176	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/30/98		7/1/98	n/a
177	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/30/98		6/30/98	n/a
178	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/25/98	n/a
179	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/30/98		7/1/98	n/a
180	TEMP	Temperature	25.3	ºC	SM 2550 B	1	n/a	6/25/98		6/25/98	n/a
181	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	6/30/98		7/1/98	n/a
182	TOC-ICR	TOC	0.75	mg/L	SM 5310 C	1	0.50	6/25/98		6/26/98	7-0-307
183	TOC-ICR	TOC (Dupl)	0.74	mg/L	SM 5310 C	1	0.50	6/25/98		6/26/98	7-0-307
			0.75	**mg/L**	**1.3 % RPD**						
184	TOX-ICR	TOX	36	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/7/98	12-0-162
185	TOX-ICR	TOX (Dupl)	39	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/7/98	12-0-162
			38	**µg Cl-/L**	**7.9 % RPD**						
186	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.8	%	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
187	THM-ICR	Bromodichloromethane	4.8	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
188	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
189	THM-ICR	Chloroform	4.6	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
190	THM-ICR	Dibromochloromethane	2.8	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
191	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	6/25/98		6/26/98	8-0-208
192	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	6/25/98		6/26/98	8-0-208
			0.009	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Sample ID: 122.10.Eff-13 **S&H ID:** 9806-630 **Date Sampled:** 6/26/98 2:31:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
193	Cl2Dose	Chlorine Dose	1.68	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/30/98		6/30/98	n/a
194	Cl2Res	Chlorine Residual	0.95	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/30/98		7/1/98	n/a
195	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	106.8	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
196	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
197	HAA-ICR	Bromochloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
198	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
199	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
200	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
201	HAA-ICR	Dichloroacetic acid	3.1	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
202	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
203	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
204	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/1/98	7/9/98	7/10/98	0-170-0
205	HAA-ICR	Trichloroacetic acid	2.7	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
206	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	6/30/98		7/1/98	n/a
207	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/30/98		6/30/98	n/a
208	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/26/98	n/a
209	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/30/98		7/1/98	n/a
210	TEMP	Temperature	25.1	ºC	SM 2550 B	1	n/a	6/26/98		6/26/98	n/a
211	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	6/30/98		7/1/98	n/a
212	TOC-ICR	TOC	0.84	mg/L	SM 5310 C	1	0.50	6/26/98		6/27/98	7-0-309
213	TOC-ICR	TOC (Dupl)	0.85	mg/L	SM 5310 C	1	0.50	6/26/98		6/27/98	7-0-309
			0.84	**mg/L**	**1.2 % RPD**						
214	TOX-ICR	TOX	51	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/7/98	12-0-162
215	TOX-ICR	TOX (Dupl)	49	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/7/98	12-0-162
			50	**µg Cl-/L**	**4.0 % RPD**						
216	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.4	%	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
217	THM-ICR	1,2,3-Trichloropropane (Surrogate) (Lab Dupl)	96.0	%	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
			98.2	**%**	**4.5 % RPD**						
218	THM-ICR	Bromodichloromethane	5.8	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
219	THM-ICR	Bromodichloromethane (Lab Dupl)	5.9	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
			5.8	**µg/L**	**1.7 % RPD**						
220	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
221	THM-ICR	Bromoform (Lab Dupl)	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
			ND	**µg/L**							
222	THM-ICR	Chloroform	6.8	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
223	THM-ICR	Chloroform (Lab Dupl)	6.9	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

			6.8	**µg/L**	**1.5 % RPD**						
224	THM-ICR	Dibromochloromethane	2.8	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
225	THM-ICR	Dibromochloromethane (Lab Dupl)	2.9	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
			2.8	**µg/L**	**3.6 % RPD**						
226	UV-ICR	UV	0.010	1/cm	SM 5910 B	1	0.009	6/26/98		6/27/98	8-0-209
227	UV-ICR	UV (Dupl)	0.010	1/cm	SM 5910 B	1	0.009	6/26/98		6/27/98	8-0-209
			0.010	**1/cm**	**0.0 % RPD**						

Sample ID: 122.10.Eff-15 **S&H ID:** 9806-632 **Date Sampled:** 6/27/98 4:01:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
228	Cl2Dose	Chlorine Dose	1.75	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/30/98		6/30/98	n/a
229	Cl2Res	Chlorine Residual	0.97	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/30/98		7/1/98	n/a
230	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	103.6	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
231	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.4	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
232	HAA-ICR	Bromochloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
233	HAA-ICR	Bromodichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
234	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
235	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
236	HAA-ICR	Dichloroacetic acid	3.9	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
237	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
238	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
239	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/1/98	7/9/98	7/10/98	0-170-0
240	HAA-ICR	Trichloroacetic acid	2.9	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
241	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/30/98		7/1/98	n/a
242	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/30/98		6/30/98	n/a
243	pH	pH	7.9	Unit	SM 4500-H+ B	1	n/a	6/27/98		6/27/98	n/a
244	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/30/98		7/1/98	n/a
245	TEMP	Temperature	25.8	ºC	SM 2550 B	1	n/a	6/27/98		6/27/98	n/a
246	TIME	Cl2 Incubation Time	24.5	hrs	n/a	1	n/a	6/30/98		7/1/98	n/a
247	TOC-ICR	TOC	0.95	mg/L	SM 5310 C	1	0.50	6/27/98		6/27/98	7-0-309
248	TOC-ICR	TOC (Dupl)	0.98	mg/L	SM 5310 C	1	0.50	6/27/98		6/27/98	7-0-309
			0.96	**mg/L**	**3.1 % RPD**						
249	TOX-ICR	TOX	58	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/7/98	12-0-162
250	TOX-ICR	TOX (Dupl)	60	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/7/98	12-0-162
			59	**µg Cl-/L**	**3.4 % RPD**						
251	THM-ICR	1,2,3-Trichloropropane (Surrogate)	87.6	%	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
252	THM-ICR	Bromodichloromethane	6.5	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
253	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

254	THM-ICR	Chloroform	8.7	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
255	THM-ICR	Dibromochloromethane	2.6	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
256	UV-ICR	UV	0.012	1/cm	SM 5910 B	1	0.009	6/27/98		6/27/98	8-0-209
257	UV-ICR	UV (Dupl)	0.012	1/cm	SM 5910 B	1	0.009	6/27/98		6/27/98	8-0-209
			0.012	**1/cm**	**0.0 % RPD**						

Sample ID: 122.10.Eff-22 **S&H ID:** 9806-639 **Date Sampled:** 6/29/98 3:51:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
258	Cl2Dose	Chlorine Dose	1.80	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/30/98		6/30/98	n/a
259	Cl2Res	Chlorine Residual	0.91	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/30/98		7/1/98	n/a
260	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	103.2	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
261	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.0	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
262	HAA-ICR	Bromochloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
263	HAA-ICR	Bromodichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
264	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
265	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
266	HAA-ICR	Dichloroacetic acid	4.9	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
267	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
268	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
269	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/1/98	7/9/98	7/10/98	0-170-0
270	HAA-ICR	Trichloroacetic acid	4.1	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
271	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/30/98		7/1/98	n/a
272	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/30/98		6/30/98	n/a
273	pH	pH	8.0	Unit	SM 4500-H+ B	1	n/a	6/29/98		6/29/98	n/a
274	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/30/98		7/1/98	n/a
275	TEMP	Temperature	25.6	ºC	SM 2550 B	1	n/a	6/29/98		6/29/98	n/a
276	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	6/30/98		7/1/98	n/a
277	TOC-ICR	TOC	1.05	mg/L	SM 5310 C	1	0.50	6/29/98		6/29/98	7-0-311
278	TOC-ICR	TOC (Dupl)	1.05	mg/L	SM 5310 C	1	0.50	6/29/98		6/29/98	7-0-311
			1.05	**mg/L**	**0.0 % RPD**						
279	TOX-ICR	TOX	74	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/6/98	12-0-161
280	TOX-ICR	TOX (Dupl)	75	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/6/98	12-0-161
			75	**µg Cl-/L**	**1.3 % RPD**						
281	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.4	%	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
282	THM-ICR	Bromodichloromethane	7.5	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
283	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
284	THM-ICR	Chloroform	12.3	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
285	THM-ICR	Dibromochloromethane	2.5	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

286	UV-ICR	UV	0.015	1/cm	SM 5910 B	1	0.009	6/29/98	6/29/98	8-0-211
287	UV-ICR	UV (Dupl)	0.015	1/cm	SM 5910 B	1	0.009	6/29/98	6/29/98	8-0-211
			0.015	**1/cm**	**0.0 % RPD**					

Sample ID: 122.10.Eff-24 **S&H ID:** 9806-641 **Date Sampled:** 7/1/98 4:55:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
288	Cl2Dose	Chlorine Dose	1.91	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/1/98		7/1/98	n/a
289	Cl2Res	Chlorine Residual	0.85	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/1/98		7/2/98	n/a
290	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.4	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
291	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.8	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
292	HAA-ICR	Bromochloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
293	HAA-ICR	Bromodichloroacetic acid	2.6	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
294	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
295	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
296	HAA-ICR	Dichloroacetic acid	6.4	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
297	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
298	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
299	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/2/98	7/13/98	7/13/98	0-171-0
300	HAA-ICR	Trichloroacetic acid	5.5	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
301	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/2/98	n/a
302	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
303	pH	pH	8.1	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
304	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	7/1/98		7/2/98	n/a
305	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	7/1/98		7/1/98	n/a
306	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	7/1/98		7/2/98	n/a
307	TOC-ICR	TOC	1.22	mg/L	SM 5310 C	1	0.50	7/1/98		7/1/98	7-0-316
308	TOC-ICR	TOC (Dupl)	1.23	mg/L	SM 5310 C	1	0.50	7/1/98		7/1/98	7-0-316
			1.23	**mg/L**	**0.8 % RPD**						
309	TOX-ICR	TOX	90	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
310	TOX-ICR	TOX (Dupl)	84	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
			87	**µg Cl-/L**	**6.9 % RPD**						
311	THM-ICR	1,2,3-Trichloropropane (Surrogate)	103.2	%	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
312	THM-ICR	Bromodichloromethane	8.4	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
313	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
314	THM-ICR	Chloroform	15.8	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
315	THM-ICR	Dibromochloromethane	2.3	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
316	UV-ICR	UV	0.020	1/cm	SM 5910 B	1	0.009	7/1/98		7/1/98	8-0-213
317	UV-ICR	UV (Dupl)	0.020	1/cm	SM 5910 B	1	0.009	7/1/98		7/1/98	8-0-213

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

			0.020	**1/cm**	**0.0 % RPD**							

Sample ID: 122.10.Eff-29 **S&H ID:** 9806-646 **Date Sampled:** 7/4/98 3:21:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
318	Cl2Dose	Chlorine Dose	2.05	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/6/98		7/6/98	n/a
319	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/6/98		7/7/98	n/a
320	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	108.4	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
321	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.0	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
322	HAA-ICR	Bromochloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
323	HAA-ICR	Bromodichloroacetic acid	2.9	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
324	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
325	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
326	HAA-ICR	Dichloroacetic acid	7.2	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
327	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
328	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
329	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/7/98	7/13/98	7/14/98	0-171-0
330	HAA-ICR	Trichloroacetic acid	7.3	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
331	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/7/98	n/a
332	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/6/98	n/a
333	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	7/4/98		7/4/98	n/a
334	TEMP	Cl2 Temperature	21.7	ºC	SM 2550 B	1	n/a	7/6/98		7/7/98	n/a
335	TEMP	Temperature	23.0	ºC	SM 2550 B	1	n/a	7/4/98		7/4/98	n/a
336	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	7/6/98		7/7/98	n/a
337	TOC-ICR	TOC	1.30	mg/L	SM 5310 C	1	0.50	7/4/98		7/4/98	7-0-322
338	TOC-ICR	TOC (Dupl)	1.32	mg/L	SM 5310 C	1	0.50	7/4/98		7/4/98	7-0-322
			1.31	**mg/L**	**1.5 % RPD**						
339	TOX-ICR	TOX	99	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/13/98	12-0-166
340	TOX-ICR	TOX (Dupl)	103	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/13/98	12-0-166
			101	**µg Cl-/L**	**4.0 % RPD**						
341	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.8	%	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
342	THM-ICR	Bromodichloromethane	8.6	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
343	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
344	THM-ICR	Chloroform	18.5	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
345	THM-ICR	Dibromochloromethane	2.3	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
346	UV-ICR	UV	0.021	1/cm	SM 5910 B	1	0.009	7/4/98		7/4/98	8-0-215
347	UV-ICR	UV (Dupl)	0.021	1/cm	SM 5910 B	1	0.009	7/4/98		7/4/98	8-0-215
			0.021	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Sample ID: 122.10.Eff-7d **S&H ID:** 9806-648 **Date Sampled:** 6/24/98 8:28:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
348	Cl2Dose	Chlorine Dose	1.47	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/26/98		6/26/98	n/a
349	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/26/98		6/27/98	n/a
350	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.6	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
351	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard) (Lab Dupl)	99.6	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
			98.6	**%**	**2.0 % RPD**						
352	HAA-ICR	2-Bromopropionic acid (Surrogate)	102.0	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
353	HAA-ICR	2-Bromopropionic acid (Surrogate) (Lab Dupl)	98.0	%	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
			100.0	**%**	**4.0 % RPD**						
354	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
355	HAA-ICR	Bromochloroacetic acid (Lab Dupl)	1.2	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
			1.3	**µg/L**	**7.7 % RPD**						
356	HAA-ICR	Bromodichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
357	HAA-ICR	Bromodichloroacetic acid (Lab Dupl)	1.1	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
			1.1	**µg/L**	**0.0 % RPD**						
358	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
359	HAA-ICR	Chlorodibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
			ND	**µg/L**							
360	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
361	HAA-ICR	Dibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
			ND	**µg/L**							
362	HAA-ICR	Dichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
363	HAA-ICR	Dichloroacetic acid (Lab Dupl)	1.1	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
			1.2	**µg/L**	**16.7 % RPD**						
364	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
365	HAA-ICR	Monobromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
			ND	**µg/L**							
366	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
367	HAA-ICR	Monochloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	6/27/98	7/9/98	7/9/98	0-170-0
			ND	**µg/L**							
368	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	6/27/98	7/9/98	7/9/98	0-170-0
369	HAA-ICR	Tribromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	4.0	6/27/98	7/9/98	7/9/98	0-170-0
			ND	**µg/L**							
370	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

371	HAA-ICR	Trichloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	6/27/98	7/9/98	7/9/98	0-170-0
			ND	**µg/L**							
372	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/27/98	n/a
373	pH	Cl2 pH - Initial	7.4	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/26/98	n/a
374	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	6/24/98		6/24/98	n/a
375	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/26/98		6/27/98	n/a
376	TEMP	Temperature	25.7	ºC	SM 2550 B	1	n/a	6/24/98		6/24/98	n/a
377	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	6/26/98		6/27/98	n/a
378	TOC-ICR	TOC	0.53	mg/L	SM 5310 C	1	0.50	6/24/98		6/25/98	7-0-306
379	TOC-ICR	TOC (Dupl)	0.53	mg/L	SM 5310 C	1	0.50	6/24/98		6/25/98	7-0-306
			0.53	**mg/L**	**0.0 % RPD**						
380	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	6/27/98		7/2/98	12-0-160
381	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	6/27/98		7/2/98	12-0-160
			ND	**µg Cl-/L**							
382	THM-ICR	1,2,3-Trichloropropane (Surrogate)	101.2	%	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
383	THM-ICR	Bromodichloromethane	2.9	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
384	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
385	THM-ICR	Chloroform	2.3	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
386	THM-ICR	Dibromochloromethane	2.1	µg/L	EPA 551.1	1	1.0	6/27/98	7/8/98	7/8/98	0-166-0
387	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/24/98		6/26/98	8-0-208
388	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/24/98		6/26/98	8-0-208
			ND	**1/cm**							

Sample ID: 122.10.Eff-13d **S&H ID:** 9806-651 **Date Sampled:** 6/26/98 2:31:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
389	Cl2Dose	Chlorine Dose	1.68	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/30/98		6/30/98	n/a
390	Cl2Res	Chlorine Residual	0.91	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/30/98		7/1/98	n/a
391	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	101.6	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
392	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
393	HAA-ICR	Bromochloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
394	HAA-ICR	Bromodichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
395	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
396	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
397	HAA-ICR	Dichloroacetic acid	3.4	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
398	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
399	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
400	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/1/98	7/9/98	7/10/98	0-170-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

401	HAA-ICR	Trichloroacetic acid	2.6	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
402	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	6/30/98		7/1/98	n/a
403	pH	Cl2 pH - Initial	7.4	Unit	SM 4500-H+ B	1	n/a	6/30/98		6/30/98	n/a
404	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	6/26/98		6/26/98	n/a
405	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/30/98		7/1/98	n/a
406	TEMP	Temperature	25.2	ºC	SM 2550 B	1	n/a	6/26/98		6/26/98	n/a
407	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	6/30/98		7/1/98	n/a
408	TOC-ICR	TOC	0.90	mg/L	SM 5310 C	1	0.50	6/26/98		6/27/98	7-0-309
409	TOC-ICR	TOC (Dupl)	0.83	mg/L	SM 5310 C	1	0.50	6/26/98		6/27/98	7-0-309
			0.86	**mg/L**	**8.1 % RPD**						
410	TOX-ICR	TOX	49	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/7/98	12-0-162
411	TOX-ICR	TOX (Dupl)	52	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/7/98	12-0-162
			51	**µg Cl-/L**	**5.9 % RPD**						
412	THM-ICR	1,2,3-Trichloropropane (Surrogate)	86.4	%	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
413	THM-ICR	Bromodichloromethane	5.9	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
414	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
415	THM-ICR	Chloroform	6.8	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
416	THM-ICR	Dibromochloromethane	2.9	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
417	UV-ICR	UV	0.010	1/cm	SM 5910 B	1	0.009	6/26/98		6/27/98	8-0-209
418	UV-ICR	UV (Dupl)	0.010	1/cm	SM 5910 B	1	0.009	6/26/98		6/27/98	8-0-209
			0.010	**1/cm**	**0.0 % RPD**						

Sample ID: 122.10.Eff-24d **S&H ID:** 9806-656 **Date Sampled:** 7/1/98 4:55:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
419	Cl2Dose	Chlorine Dose	1.91	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/1/98		7/1/98	n/a
420	Cl2Res	Chlorine Residual	0.94	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/1/98		7/2/98	n/a
421	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.4	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
422	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.0	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
423	HAA-ICR	Bromochloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
424	HAA-ICR	Bromodichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
425	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
426	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
427	HAA-ICR	Dichloroacetic acid	5.9	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
428	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
429	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
430	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/2/98	7/13/98	7/13/98	0-171-0
431	HAA-ICR	Trichloroacetic acid	5.0	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
432	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/2/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

433	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
434	pH	pH	8.1	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
435	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	7/1/98		7/2/98	n/a
436	TEMP	Temperature	22.9	ºC	SM 2550 B	1	n/a	7/1/98		7/1/98	n/a
437	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	7/1/98		7/2/98	n/a
438	TOC-ICR	TOC	1.24	mg/L	SM 5310 C	1	0.50	7/1/98		7/1/98	7-0-316
439	TOC-ICR	TOC (Dupl)	1.22	mg/L	SM 5310 C	1	0.50	7/1/98		7/1/98	7-0-316
			1.23	**mg/L**	**1.6 % RPD**						
440	TOX-ICR	TOX	88	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
441	TOX-ICR	TOX (Dupl)	88	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
			88	**µg Cl-/L**	**0.0 % RPD**						
442	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.4	%	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
443	THM-ICR	Bromodichloromethane	8.3	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
444	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
445	THM-ICR	Chloroform	15.5	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
446	THM-ICR	Dibromochloromethane	2.2	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
447	UV-ICR	UV	0.019	1/cm	SM 5910 B	1	0.009	7/1/98		7/1/98	8-0-213
448	UV-ICR	UV (Dupl)	0.019	1/cm	SM 5910 B	1	0.009	7/1/98		7/1/98	8-0-213
			0.019	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-1 **S&H ID:** 9806-658 **Date Sampled:** 6/20/98 7:03:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
449	Cl2Dose	Chlorine Dose	1.20	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/25/98		6/25/98	n/a
450	Cl2Res	Chlorine Residual	0.97	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/25/98		6/26/98	n/a
451	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.6	%	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
452	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.8	%	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
453	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
454	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
455	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/26/98	7/6/98	7/7/98	0-164-0
456	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
457	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
458	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
459	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/26/98	7/6/98	7/7/98	0-164-0
460	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	6/26/98	7/6/98	7/7/98	0-164-0
461	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
462	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/26/98	n/a
463	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/25/98	n/a
464	pH	pH	8.2	Unit	SM 4500-H+ B	1	n/a	6/20/98		6/20/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

465	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/25/98		6/26/98	n/a
466	TEMP	Temperature	25.2	ºC	SM 2550 B	1	n/a	6/20/98		6/20/98	n/a
467	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	6/25/98		6/26/98	n/a
468	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	6/20/98		6/21/98	7-0-302
469	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	6/20/98		6/21/98	7-0-302
			ND	**mg/L**							
470	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	6/26/98		7/1/98	12-0-159
471	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	6/26/98		7/1/98	12-0-159
			ND	**µg Cl-/L**							
472	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.4	%	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
473	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
474	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
475	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
476	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
477	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/20/98		6/21/98	8-0-205
478	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/20/98		6/21/98	8-0-205
			ND	**1/cm**							

Sample ID: 122.20.Eff-7 **S&H ID:** 9806-664 **Date Sampled:** 6/28/98 3:31:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
479	Cl2Dose	Chlorine Dose	1.27	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/30/98		6/30/98	n/a
480	Cl2Res	Chlorine Residual	0.87	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/30/98		7/1/98	n/a
481	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	92.0	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
482	HAA-ICR	2-Bromopropionic acid (Surrogate)	91.2	%	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
483	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
484	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
485	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
486	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
487	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
488	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
489	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/1/98	7/9/98	7/10/98	0-170-0
490	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/1/98	7/9/98	7/10/98	0-170-0
491	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/1/98	7/9/98	7/10/98	0-170-0
492	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	6/30/98		7/1/98	n/a
493	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/30/98		6/30/98	n/a
494	pH	pH	8.3	Unit	SM 4500-H+ B	1	n/a	6/28/98		6/28/98	n/a
495	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/30/98		7/1/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

496	TEMP	Temperature	25.6	ºC	SM 2550 B	1	n/a	6/28/98		6/28/98	n/a
497	TIME	Cl2 Incubation Time	24.5	hrs	n/a	1	n/a	6/30/98		7/1/98	n/a
498	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	6/28/98		6/29/98	7-0-311
499	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	6/28/98		6/29/98	7-0-311
			ND	**mg/L**							
500	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/6/98	12-0-161
501	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	7/1/98		7/6/98	12-0-161
			ND	**µg Cl-/L**							
502	THM-ICR	1,2,3-Trichloropropane (Surrogate)	81.6	%	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
503	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
504	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
505	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
506	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	7/1/98	7/8/98	7/8/98	0-166-0
507	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/28/98		6/29/98	8-0-211
508	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/28/98		6/29/98	8-0-211
			ND	**1/cm**							

Sample ID: 122.20.Eff-10 **S&H ID:** 9806-667 **Date Sampled:** 6/29/98 12:54:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
509	Cl2Dose	Chlorine Dose	1.35	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/1/98		7/1/98	n/a
510	Cl2Res	Chlorine Residual	0.95	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/1/98		7/2/98	n/a
511	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	101.6	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
512	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
513	HAA-ICR	Bromochloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
514	HAA-ICR	Bromodichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
515	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
516	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
517	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
518	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
519	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
520	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/2/98	7/13/98	7/13/98	0-171-0
521	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
522	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/2/98	n/a
523	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
524	pH	pH	8.2	Unit	SM 4500-H+ B	1	n/a	6/29/98		6/29/98	n/a
525	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	7/1/98		7/2/98	n/a
526	TEMP	Temperature	25.0	ºC	SM 2550 B	1	n/a	6/29/98		6/29/98	n/a
527	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	7/1/98		7/2/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

528	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	6/29/98		6/30/98	7-0-312
529	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	6/29/98		6/30/98	7-0-312
			ND	**mg/L**							
530	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
531	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
			ND	**µg Cl-/L**							
532	THM-ICR	1,2,3-Trichloropropane (Surrogate)	91.2	%	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
533	THM-ICR	Bromodichloromethane	1.4	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
534	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
535	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
536	THM-ICR	Dibromochloromethane	1.4	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
537	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/29/98		6/30/98	8-0-212
538	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/29/98		6/30/98	8-0-212
			ND	**1/cm**							

Sample ID: 122.20.Eff-13 **S&H ID:** 9806-670 **Date Sampled:** 6/30/98 10:05:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
539	Cl2Dose	Chlorine Dose	1.40	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/1/98		7/1/98	n/a
540	Cl2Res	Chlorine Residual	0.94	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/1/98		7/2/98	n/a
541	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	96.4	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
542	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
543	HAA-ICR	Bromochloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
544	HAA-ICR	Bromodichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
545	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
546	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
547	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
548	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
549	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
550	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/2/98	7/13/98	7/13/98	0-171-0
551	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
552	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/2/98	n/a
553	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
554	pH	pH	8.3	Unit	SM 4500-H+ B	1	n/a	6/30/98		6/30/98	n/a
555	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	7/1/98		7/2/98	n/a
556	TEMP	Temperature	22.6	ºC	SM 2550 B	1	n/a	6/30/98		6/30/98	n/a
557	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	7/1/98		7/2/98	n/a
558	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	6/30/98		6/30/98	7-0-312
559	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	6/30/98		6/30/98	7-0-312

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

			ND	**mg/L**							
560	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
561	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
			ND	**µg Cl-/L**							
562	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.4	%	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
563	THM-ICR	Bromodichloromethane	2.0	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
564	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
565	THM-ICR	Chloroform	1.3	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
566	THM-ICR	Dibromochloromethane	1.8	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
567	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/30/98		7/1/98	8-0-213
568	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/30/98		7/1/98	8-0-213
			ND	**1/cm**							

Sample ID: 122.20.Eff-15 **S&H ID:** 9806-672 **Date Sampled:** 7/1/98 12:01:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
569	Cl2Dose	Chlorine Dose	1.49	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/1/98		7/1/98	n/a
570	Cl2Res	Chlorine Residual	0.91	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/1/98		7/2/98	n/a
571	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.4	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
572	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.2	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
573	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
574	HAA-ICR	Bromodichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
575	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
576	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
577	HAA-ICR	Dichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
578	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
579	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
580	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/2/98	7/13/98	7/13/98	0-171-0
581	HAA-ICR	Trichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
582	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/2/98	n/a
583	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
584	pH	pH	8.3	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
585	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	7/1/98		7/2/98	n/a
586	TEMP	Temperature	23.3	ºC	SM 2550 B	1	n/a	7/1/98		7/1/98	n/a
587	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	7/1/98		7/2/98	n/a
588	TOC-ICR	TOC	0.55	mg/L	SM 5310 C	1	0.50	7/1/98		7/1/98	7-0-316
589	TOC-ICR	TOC (Dupl)	0.57	mg/L	SM 5310 C	1	0.50	7/1/98		7/1/98	7-0-316
			0.56	**mg/L**	**3.6 % RPD**						
590	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

591	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/9/98	12-0-164
			ND	**µg Cl-/L**							
592	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.0	%	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
593	THM-ICR	Bromodichloromethane	2.6	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
594	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
595	THM-ICR	Chloroform	1.8	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
596	THM-ICR	Dibromochloromethane	2.2	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
597	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	7/1/98		7/1/98	8-0-213
598	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	7/1/98		7/1/98	8-0-213
			ND	**1/cm**							

Sample ID: 122.20.Eff-21 **S&H ID:** 9806-678 **Date Sampled:** 7/3/98 3:18:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
599	Cl2Dose	Chlorine Dose	1.65	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/6/98		7/6/98	n/a
600	Cl2Res	Chlorine Residual	1.02	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/6/98		7/7/98	n/a
601	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	106.0	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
602	HAA-ICR	2-Bromopropionic acid (Surrogate)	93.2	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
603	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
604	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
605	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
606	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
607	HAA-ICR	Dichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
608	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
609	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
610	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/7/98	7/13/98	7/14/98	0-171-0
611	HAA-ICR	Trichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
612	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/7/98	n/a
613	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/6/98	n/a
614	pH	pH	8.4	Unit	SM 4500-H+ B	1	n/a	7/3/98		7/3/98	n/a
615	TEMP	Cl2 Temperature	21.7	ºC	SM 2550 B	1	n/a	7/6/98		7/7/98	n/a
616	TEMP	Temperature	23.9	ºC	SM 2550 B	1	n/a	7/3/98		7/3/98	n/a
617	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	7/6/98		7/7/98	n/a
618	TOC-ICR	TOC	0.64	mg/L	SM 5310 C	1	0.50	7/3/98		7/4/98	7-0-322
619	TOC-ICR	TOC (Dupl)	0.65	mg/L	SM 5310 C	1	0.50	7/3/98		7/4/98	7-0-322
			0.65	**mg/L**	**1.5 % RPD**						
620	TOX-ICR	TOX	29	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/13/98	12-0-166
621	TOX-ICR	TOX (Dupl)	34	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/13/98	12-0-166
			32	**µg Cl-/L**	**15.6 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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622	THM-ICR	1,2,3-Trichloropropane (Surrogate)	93.6	%	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
623	THM-ICR	Bromodichloromethane	4.7	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
624	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
625	THM-ICR	Chloroform	4.0	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
626	THM-ICR	Dibromochloromethane	2.9	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
627	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	7/3/98		7/4/98	8-0-215
628	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	7/3/98		7/4/98	8-0-215
			ND	**1/cm**							

Sample ID: 122.20.Eff-23 **S&H ID:** 9806-680 **Date Sampled:** 7/5/98 2:21:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
629	Cl2Dose	Chlorine Dose	1.72	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/6/98		7/6/98	n/a
630	Cl2Res	Chlorine Residual	1.09	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/6/98		7/7/98	n/a
631	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.4	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
632	HAA-ICR	2-Bromopropionic acid (Surrogate)	90.4	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
633	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
634	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
635	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
636	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
637	HAA-ICR	Dichloroacetic acid	2.4	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
638	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
639	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
640	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/7/98	7/13/98	7/14/98	0-171-0
641	HAA-ICR	Trichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
642	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/7/98	n/a
643	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/6/98	n/a
644	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	7/5/98		7/5/98	n/a
645	TEMP	Cl2 Temperature	21.7	ºC	SM 2550 B	1	n/a	7/6/98		7/7/98	n/a
646	TEMP	Temperature	23.3	ºC	SM 2550 B	1	n/a	7/5/98		7/5/98	n/a
647	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	7/6/98		7/7/98	n/a
648	TOC-ICR	TOC	0.81	mg/L	SM 5310 C	1	0.50	7/5/98		7/5/98	7-0-324
649	TOC-ICR	TOC (Dupl)	0.82	mg/L	SM 5310 C	1	0.50	7/5/98		7/5/98	7-0-324
			0.81	**mg/L**	**1.2 % RPD**						
650	TOX-ICR	TOX	42	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/13/98	12-0-166
651	TOX-ICR	TOX (Dupl)	39	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/13/98	12-0-166
			41	**µg Cl-/L**	**7.3 % RPD**						
652	THM-ICR	1,2,3-Trichloropropane (Surrogate)	95.6	%	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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Study Title: ICR RSSCT #2

653	THM-ICR	Bromodichloromethane	6.0	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
654	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
655	THM-ICR	Chloroform	6.4	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
656	THM-ICR	Dibromochloromethane	3.1	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
657	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	7/5/98		7/5/98	8-0-218
658	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	7/5/98		7/5/98	8-0-218
			0.009	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-27 **S&H ID:** 9806-684 **Date Sampled:** 7/7/98 5:38:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
659	Cl2Dose	Chlorine Dose	1.78	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/9/98		7/9/98	n/a
660	Cl2Res	Chlorine Residual	1.02	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/9/98		7/10/98	n/a
661	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.8	%	EPA 552.2	1	1.0	7/10/98	7/21/98	7/22/98	0-179-0
662	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.6	%	EPA 552.2	1	1.0	7/10/98	7/21/98	7/22/98	0-179-0
663	HAA-ICR	Bromochloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	7/10/98	7/21/98	7/22/98	0-179-0
664	HAA-ICR	Bromodichloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	7/10/98	7/21/98	7/22/98	0-179-0
665	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/10/98	7/21/98	7/22/98	0-179-0
666	HAA-ICR	Dibromoacetic acid	1.3	µg/L	EPA 552.2	1	1.0	7/10/98	7/21/98	7/22/98	0-179-0
667	HAA-ICR	Dichloroacetic acid	4.5	µg/L	EPA 552.2	1	1.0	7/10/98	7/21/98	7/22/98	0-179-0
668	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/10/98	7/21/98	7/22/98	0-179-0
669	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/10/98	7/21/98	7/22/98	0-179-0
670	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/10/98	7/21/98	7/22/98	0-179-0
671	HAA-ICR	Trichloroacetic acid	3.7	µg/L	EPA 552.2	1	1.0	7/10/98	7/21/98	7/22/98	0-179-0
672	pH	Cl2 pH - Final	7.4	Unit	SM 4500-H+ B	1	n/a	7/9/98		7/10/98	n/a
673	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/9/98		7/9/98	n/a
674	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	7/7/98		7/7/98	n/a
675	TEMP	Cl2 Temperature	21.4	ºC	SM 2550 B	1	n/a	7/9/98		7/10/98	n/a
676	TEMP	Temperature	24.1	ºC	SM 2550 B	1	n/a	7/7/98		7/7/98	n/a
677	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	7/9/98		7/10/98	n/a
678	TOC-ICR	TOC	0.91	mg/L	SM 5310 C	1	0.50	7/7/98		7/8/98	7-0-331
679	TOC-ICR	TOC (Dupl)	0.90	mg/L	SM 5310 C	1	0.50	7/7/98		7/8/98	7-0-331
			0.91	**mg/L**	**1.1 % RPD**						
680	TOX-ICR	TOX	58	µg Cl-/L	SM 5320 B	1	25	7/10/98		7/21/98	12-0-172
681	TOX-ICR	TOX (Dupl)	57	µg Cl-/L	SM 5320 B	1	25	7/10/98		7/21/98	12-0-172
			58	**µg Cl-/L**	**1.7 % RPD**						
682	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.4	%	EPA 551.1	1	1.0	7/10/98	7/20/98	7/20/98	0-178-0
683	THM-ICR	Bromodichloromethane	6.5	µg/L	EPA 551.1	1	1.0	7/10/98	7/20/98	7/20/98	0-178-0
684	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/10/98	7/20/98	7/20/98	0-178-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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Study Title: ICR RSSCT #2

685	THM-ICR	Chloroform	9.0	µg/L	EPA 551.1	1	1.0	7/10/98	7/20/98	7/20/98	0-178-0
686	THM-ICR	Dibromochloromethane	2.7	µg/L	EPA 551.1	1	1.0	7/10/98	7/20/98	7/20/98	0-178-0
687	UV-ICR	UV	0.012	1/cm	SM 5910 B	1	0.009	7/7/98		7/8/98	8-0-222
688	UV-ICR	UV (Dupl)	0.012	1/cm	SM 5910 B	1	0.009	7/7/98		7/8/98	8-0-222
			0.012	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-28 **S&H ID:** 9806-685 **Date Sampled:** 7/10/98 9:13:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
689	Cl2Dose	Chlorine Dose	1.82	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/13/98		7/13/98	n/a
690	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/13/98		7/14/98	n/a
691	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.8	%	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
692	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard) (Lab Dupl)	100.0	%	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
			99.4	**%**	**1.2 % RPD**						
693	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.6	%	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
694	HAA-ICR	2-Bromopropionic acid (Surrogate) (Lab Dupl)	95.6	%	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
			97.6	**%**	**4.1 % RPD**						
695	HAA-ICR	Bromochloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
696	HAA-ICR	Bromochloroacetic acid (Lab Dupl)	2.0	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
			2.0	**µg/L**	**0.0 % RPD**						
697	HAA-ICR	Bromodichloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
698	HAA-ICR	Bromodichloroacetic acid (Lab Dupl)	2.2	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
			2.1	**µg/L**	**9.5 % RPD**						
699	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/14/98	7/23/98	7/23/98	0-181-0
700	HAA-ICR	Chlorodibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	7/14/98	7/23/98	7/23/98	0-181-0
			ND	**µg/L**							
701	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
702	HAA-ICR	Dibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
			ND	**µg/L**							
703	HAA-ICR	Dichloroacetic acid	3.8	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
704	HAA-ICR	Dichloroacetic acid (Lab Dupl)	4.0	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
			3.9	**µg/L**	**5.1 % RPD**						
705	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
706	HAA-ICR	Monobromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
			ND	**µg/L**							
707	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/14/98	7/23/98	7/23/98	0-181-0
708	HAA-ICR	Monochloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	7/14/98	7/23/98	7/23/98	0-181-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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			ND	**µg/L**							
709	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/14/98	7/23/98	7/23/98	0-181-0
710	HAA-ICR	Tribromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	4.0	7/14/98	7/23/98	7/23/98	0-181-0
			ND	**µg/L**							
711	HAA-ICR	Trichloroacetic acid	3.2	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
712	HAA-ICR	Trichloroacetic acid (Lab Dupl)	3.4	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
			3.3	**µg/L**	**6.1 % RPD**						
713	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	7/13/98		7/14/98	n/a
714	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/13/98		7/13/98	n/a
715	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	7/10/98		7/10/98	n/a
716	TEMP	Cl2 Temperature	21.3	ºC	SM 2550 B	1	n/a	7/13/98		7/14/98	n/a
717	TEMP	Temperature	23.0	ºC	SM 2550 B	1	n/a	7/10/98		7/10/98	n/a
718	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	7/13/98		7/14/98	n/a
719	TOC-ICR	TOC	0.97	mg/L	SM 5310 C	1	0.50	7/10/98		7/10/98	7-0-333
720	TOC-ICR	TOC (Dupl)	0.98	mg/L	SM 5310 C	1	0.50	7/10/98		7/10/98	7-0-333
			0.97	**mg/L**	**1.0 % RPD**						
721	TOX-ICR	TOX	69	µg Cl-/L	SM 5320 B	1	25	7/14/98		7/24/98	12-0-175
722	TOX-ICR	TOX (Dupl)	67	µg Cl-/L	SM 5320 B	1	25	7/14/98		7/24/98	12-0-175
			68	**µg Cl-/L**	**2.9 % RPD**						
723	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.0	%	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
724	THM-ICR	Bromodichloromethane	7.1	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
725	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
726	THM-ICR	Chloroform	10.3	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
727	THM-ICR	Dibromochloromethane	2.8	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
728	UV-ICR	UV	0.013	1/cm	SM 5910 B	1	0.009	7/10/98		7/10/98	8-0-225
729	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	7/10/98		7/10/98	8-0-225
			0.013	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-29 **S&H ID:** 9806-686 **Date Sampled:** 7/13/98 7:08:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
730	Cl2Dose	Chlorine Dose	1.85	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/13/98		7/13/98	n/a
731	Cl2Res	Chlorine Residual	1.08	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/13/98		7/14/98	n/a
732	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	101.6	%	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
733	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.4	%	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
734	HAA-ICR	Bromochloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
735	HAA-ICR	Bromodichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
736	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/14/98	7/23/98	7/23/98	0-181-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

737	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
738	HAA-ICR	Dichloroacetic acid	4.0	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
739	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
740	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/14/98	7/23/98	7/23/98	0-181-0
741	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/14/98	7/23/98	7/23/98	0-181-0
742	HAA-ICR	Trichloroacetic acid	3.5	µg/L	EPA 552.2	1	1.0	7/14/98	7/23/98	7/23/98	0-181-0
743	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	7/13/98		7/14/98	n/a
744	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	7/13/98		7/13/98	n/a
745	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	7/13/98		7/13/98	n/a
746	TEMP	Cl2 Temperature	21.3	ºC	SM 2550 B	1	n/a	7/13/98		7/14/98	n/a
747	TEMP	Temperature	23.0	ºC	SM 2550 B	1	n/a	7/13/98		7/13/98	n/a
748	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	7/13/98		7/14/98	n/a
749	TOC-ICR	TOC	1.02	mg/L	SM 5310 C	1	0.50	7/13/98		7/13/98	7-0-337
750	TOC-ICR	TOC (Dupl)	1.03	mg/L	SM 5310 C	1	0.50	7/13/98		7/13/98	7-0-337
			1.02	**mg/L**	**1.0 % RPD**						
751	TOX-ICR	TOX	71	µg Cl-/L	SM 5320 B	1	25	7/14/98		7/24/98	12-0-175
752	TOX-ICR	TOX (Dupl)	70	µg Cl-/L	SM 5320 B	1	25	7/14/98		7/24/98	12-0-175
			71	**µg Cl-/L**	**1.4 % RPD**						
753	THM-ICR	1,2,3-Trichloropropane (Surrogate)	90.0	%	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
754	THM-ICR	1,2,3-Trichloropropane (Surrogate) (Lab Dupl)	93.2	%	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
			91.6	**%**	**3.5 % RPD**						
755	THM-ICR	Bromodichloromethane	7.2	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
756	THM-ICR	Bromodichloromethane (Lab Dupl)	7.4	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
			7.3	**µg/L**	**2.7 % RPD**						
757	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
758	THM-ICR	Bromoform (Lab Dupl)	ND	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
			ND	**µg/L**							
759	THM-ICR	Chloroform	11.1	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
760	THM-ICR	Chloroform (Lab Dupl)	11.5	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
			11.3	**µg/L**	**3.5 % RPD**						
761	THM-ICR	Dibromochloromethane	2.7	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
762	THM-ICR	Dibromochloromethane (Lab Dupl)	2.7	µg/L	EPA 551.1	1	1.0	7/14/98	7/27/98	7/27/98	0-182-0
			2.7	**µg/L**	**0.0 % RPD**						
763	UV-ICR	UV	0.014	1/cm	SM 5910 B	1	0.009	7/13/98		7/13/98	8-0-227
764	UV-ICR	UV (Dupl)	0.014	1/cm	SM 5910 B	1	0.009	7/13/98		7/13/98	8-0-227
			0.014	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-30 **S&H ID:** 9806-687 **Date Sampled:** 7/16/98 12:15:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
765	Cl2Dose	Chlorine Dose	1.97	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/20/98		7/20/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

766	Cl2Res	Chlorine Residual	0.96	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/20/98		7/21/98	n/a
767	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.8	%	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
768	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.8	%	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
769	HAA-ICR	Bromochloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
770	HAA-ICR	Bromodichloroacetic acid	2.8	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
771	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/21/98	7/23/98	7/24/98	0-181-0
772	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
773	HAA-ICR	Dichloroacetic acid	4.6	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
774	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
775	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/21/98	7/23/98	7/24/98	0-181-0
776	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/21/98	7/23/98	7/24/98	0-181-0
777	HAA-ICR	Trichloroacetic acid	5.2	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
778	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/21/98	n/a
779	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/20/98	n/a
780	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	7/16/98		7/16/98	n/a
781	TEMP	Cl2 Temperature	20.5	ºC	SM 2550 B	1	n/a	7/20/98		7/21/98	n/a
782	TEMP	Temperature	23.4	ºC	SM 2550 B	1	n/a	7/16/98		7/16/98	n/a
783	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	7/20/98		7/21/98	n/a
784	TOC-ICR	TOC	1.21	mg/L	SM 5310 C	1	0.50	7/16/98		7/17/98	7-0-340
785	TOC-ICR	TOC (Dupl)	1.23	mg/L	SM 5310 C	1	0.50	7/16/98		7/17/98	7-0-340
			1.22	**mg/L**	**1.6 % RPD**						
786	TOX-ICR	TOX	84	µg Cl-/L	SM 5320 B	1	25	7/21/98		7/24/98	12-0-175
787	TOX-ICR	TOX (Dupl)	88	µg Cl-/L	SM 5320 B	1	25	7/21/98		7/24/98	12-0-175
			86	**µg Cl-/L**	**4.7 % RPD**						
788	THM-ICR	1,2,3-Trichloropropane (Surrogate)	86.0	%	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
789	THM-ICR	Bromodichloromethane	7.4	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
790	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
791	THM-ICR	Chloroform	12.7	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
792	THM-ICR	Dibromochloromethane	2.2	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
793	UV-ICR	UV	0.018	1/cm	SM 5910 B	1	0.009	7/16/98		7/16/98	8-0-228
794	UV-ICR	UV (Dupl)	0.018	1/cm	SM 5910 B	1	0.009	7/16/98		7/16/98	8-0-228
			0.018	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-10d **S&H ID:** 9806-688 **Date Sampled:** 6/29/98 12:54:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
795	Cl2Dose	Chlorine Dose	1.35	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/1/98		7/1/98	n/a
796	Cl2Res	Chlorine Residual	0.91	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/1/98		7/2/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

797	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	108.0	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
798	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard) (Lab Dupl)	98.4	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
			103.2	**%**	**9.3 % RPD**						
799	HAA-ICR	2-Bromopropionic acid (Surrogate)	95.6	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
800	HAA-ICR	2-Bromopropionic acid (Surrogate) (Lab Dupl)	96.4	%	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
			96.0	**%**	**0.8 % RPD**						
801	HAA-ICR	Bromochloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
802	HAA-ICR	Bromochloroacetic acid (Lab Dupl)	1.0	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
			1.0	**µg/L**	**0.0 % RPD**						
803	HAA-ICR	Bromodichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
804	HAA-ICR	Bromodichloroacetic acid (Lab Dupl)	1.1	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
			1.1	**µg/L**	**9.1 % RPD**						
805	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
806	HAA-ICR	Chlorodibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
			ND	**µg/L**							
807	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
808	HAA-ICR	Dibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
			ND	**µg/L**							
809	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
810	HAA-ICR	Dichloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
			ND	**µg/L**							
811	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
812	HAA-ICR	Monobromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
			ND	**µg/L**							
813	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
814	HAA-ICR	Monochloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	7/2/98	7/13/98	7/13/98	0-171-0
			ND	**µg/L**							
815	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/2/98	7/13/98	7/13/98	0-171-0
816	HAA-ICR	Tribromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	4.0	7/2/98	7/13/98	7/13/98	0-171-0
			ND	**µg/L**							
817	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
818	HAA-ICR	Trichloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	7/2/98	7/13/98	7/13/98	0-171-0
			ND	**µg/L**							
819	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/2/98	n/a
820	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/1/98		7/1/98	n/a
821	pH	pH	8.2	Unit	SM 4500-H+ B	1	n/a	6/29/98		6/29/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

822	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	7/1/98		7/2/98	n/a
823	TEMP	Temperature	25.0	ºC	SM 2550 B	1	n/a	6/29/98		6/29/98	n/a
824	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	7/1/98		7/2/98	n/a
825	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	6/29/98		6/30/98	7-0-312
826	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	6/29/98		6/30/98	7-0-312
			ND	**mg/L**							
827	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/10/98	12-0-165
828	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	7/2/98		7/10/98	12-0-165
			ND	**µg Cl-/L**							
829	THM-ICR	1,2,3-Trichloropropane (Surrogate)	99.2	%	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
830	THM-ICR	Bromodichloromethane	1.3	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
831	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
832	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
833	THM-ICR	Dibromochloromethane	1.3	µg/L	EPA 551.1	1	1.0	7/2/98	7/14/98	7/14/98	0-172-0
834	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	6/29/98		6/30/98	8-0-212
835	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	6/29/98		6/30/98	8-0-212
			ND	**1/cm**							

Sample ID: 122.20.Eff-23d **S&H ID:** 9806-691 **Date Sampled:** 7/5/98 2:21:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
836	Cl2Dose	Chlorine Dose	1.72	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/6/98		7/6/98	n/a
837	Cl2Res	Chlorine Residual	1.04	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/6/98		7/7/98	n/a
838	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	99.6	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
839	HAA-ICR	2-Bromopropionic acid (Surrogate)	90.4	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
840	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
841	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
842	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
843	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
844	HAA-ICR	Dichloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
845	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
846	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
847	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/7/98	7/13/98	7/14/98	0-171-0
848	HAA-ICR	Trichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
849	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/7/98	n/a
850	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/6/98	n/a
851	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	7/5/98		7/5/98	n/a
852	TEMP	Cl2 Temperature	21.7	ºC	SM 2550 B	1	n/a	7/6/98		7/7/98	n/a
853	TEMP	Temperature	23.3	ºC	SM 2550 B	1	n/a	7/5/98		7/5/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

854	TIME	Cl2 Incubation Time	24.5	hrs	n/a	1	n/a	7/6/98		7/7/98	n/a
855	TOC-ICR	TOC	0.80	mg/L	SM 5310 C	1	0.50	7/5/98		7/5/98	7-0-324
856	TOC-ICR	TOC (Dupl)	0.79	mg/L	SM 5310 C	1	0.50	7/5/98		7/5/98	7-0-324
			0.80	**mg/L**	**1.3 % RPD**						
857	TOX-ICR	TOX	42	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/13/98	12-0-166
858	TOX-ICR	TOX (Dupl)	44	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/13/98	12-0-166
			43	**µg Cl-/L**	**4.7 % RPD**						
859	THM-ICR	1,2,3-Trichloropropane (Surrogate)	95.6	%	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
860	THM-ICR	Bromodichloromethane	5.6	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
861	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
862	THM-ICR	Chloroform	6.0	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
863	THM-ICR	Dibromochloromethane	2.7	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
864	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	7/5/98		7/5/98	8-0-218
865	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	7/5/98		7/5/98	8-0-218
			0.009	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-30d **S&H ID:** 9806-692 **Date Sampled:** 7/16/98 12:15:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
866	Cl2Dose	Chlorine Dose	1.97	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/20/98		7/20/98	n/a
867	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/20/98		7/21/98	n/a
868	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	107.6	%	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
869	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.0	%	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
870	HAA-ICR	Bromochloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
871	HAA-ICR	Bromodichloroacetic acid	3.1	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
872	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/21/98	7/23/98	7/24/98	0-181-0
873	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
874	HAA-ICR	Dichloroacetic acid	5.0	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
875	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
876	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/21/98	7/23/98	7/24/98	0-181-0
877	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/21/98	7/23/98	7/24/98	0-181-0
878	HAA-ICR	Trichloroacetic acid	5.6	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
879	pH	Cl2 pH - Final	7.4	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/21/98	n/a
880	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/20/98	n/a
881	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	7/16/98		7/16/98	n/a
882	TEMP	Cl2 Temperature	20.5	ºC	SM 2550 B	1	n/a	7/20/98		7/21/98	n/a
883	TEMP	Temperature	23.4	ºC	SM 2550 B	1	n/a	7/16/98		7/16/98	n/a
884	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	7/20/98		7/21/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

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885	TOC-ICR	TOC	1.21	mg/L	SM 5310 C	1	0.50	7/16/98		7/17/98	7-0-340
886	TOC-ICR	TOC (Dupl)	1.21	mg/L	SM 5310 C	1	0.50	7/16/98		7/17/98	7-0-340
			1.21	**mg/L**	**0.0 % RPD**						
887	TOX-ICR	TOX	88	µg Cl-/L	SM 5320 B	1	25	7/21/98		7/24/98	12-0-175
888	TOX-ICR	TOX (Dupl)	86	µg Cl-/L	SM 5320 B	1	25	7/21/98		7/24/98	12-0-175
			87	**µg Cl-/L**	**2.3 % RPD**						
889	THM-ICR	1,2,3-Trichloropropane (Surrogate)	91.2	%	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
890	THM-ICR	Bromodichloromethane	7.7	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
891	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
892	THM-ICR	Chloroform	13.3	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
893	THM-ICR	Dibromochloromethane	2.2	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
894	UV-ICR	UV	0.018	1/cm	SM 5910 B	1	0.009	7/16/98		7/16/98	8-0-228
895	UV-ICR	UV (Dupl)	0.018	1/cm	SM 5910 B	1	0.009	7/16/98		7/16/98	8-0-228
			0.018	**1/cm**	**0.0 % RPD**						

Sample ID: 122.Inf.A-1 **S&H ID:** 9806-698 **Date Sampled:** 6/20/98 12:15:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
896	ALK	Alkalinity	28	mg/L	SM 2320 B	1	5	6/20/98		6/21/98	1-0-24
897	ALK	Alkalinity (Dupl)	29	mg/L	SM 2320 B	1	5	6/20/98		6/21/98	1-0-24
			29	**mg/L**	**3.4 % RPD**						
898	NH3	Ammonia Nitrogen	ND	mg/L	EPA 350.1	1	0.05	6/20/98		7/6/98	MW80178
899	BR	Bromide	0.022	mg/L	EPA 300.0 A	1	0.020	6/20/98		7/9/98	MW80408
900	CaHardM	Calcium Hardness	18	mg/L CaCO3	EPA 200.7	1	5	6/20/98		7/14/98	MW n/a
901	CaMW	Calcium, Total, ICAP	7	mg/L	EPA 200.7	1	1	6/20/98	7/14/98	7/14/98	MW80588
902	MgMW	Magnesium, Total, ICAP	3	mg/L	EPA 200.7	1	0	6/20/98	7/14/98	7/14/98	MW80590
903	TotHard	Total Hardness as CaCO3 by ICP	30	mg/L CaCO3	SM 2340B	1	7	6/20/98		7/14/98	MW n/a

Sample ID: 122.Inf.A-2 **S&H ID:** 9806-699 **Date Sampled:** 7/6/98 2:30:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
904	ALK	Alkalinity	23	mg/L	SM 2320 B	1	5	7/6/98		7/7/98	1-0-25
905	ALK	Alkalinity (Dupl)	24	mg/L	SM 2320 B	1	5	7/6/98		7/7/98	1-0-25
			24	**mg/L**	**4.2 % RPD**						
906	NH3	Ammonia Nitrogen	0.06	mg/L	EPA 350.1	1	0.05	7/6/98		7/13/98	MW80529
907	BR	Bromide	0.021	mg/L	EPA 300.0 A	1	0.020	7/6/98		7/15/98	MW80695
908	CaHardM	Calcium Hardness	19	mg/L CaCO3	EPA 200.7	1	5	7/6/98		7/29/98	MW n/a
909	CaMW	Calcium, Total, ICAP	8	mg/L	EPA 200.7	1	1	7/6/98	7/29/98	7/29/98	MW81464
910	MgMW	Magnesium, Total, ICAP	3	mg/L	EPA 200.7	1	0	7/6/98	7/29/98	7/29/98	MW81465

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

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911	TotHard	Total Hardness as CaCO3 by ICP	31	mg/L CaCO3	SM 2340B	1	7	7/6/98		7/29/98	MW n/a

Sample ID: 122.Inf.B-1 **S&H ID:** 9806-700 **Date Sampled:** 6/20/98 12:20:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
912	Cl2Dose	Chlorine Dose	2.51	mg/L as Cl2	SM 4500-Cl B	1	n/a	6/25/98		6/25/98	n/a
913	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	6/25/98		6/26/98	n/a
914	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	106.4	%	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
915	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.0	%	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
916	HAA-ICR	Bromochloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
917	HAA-ICR	Bromodichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
918	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/26/98	7/6/98	7/7/98	0-164-0
919	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
920	HAA-ICR	Dichloroacetic acid	10.0	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
921	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
922	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	6/26/98	7/6/98	7/7/98	0-164-0
923	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	6/26/98	7/6/98	7/7/98	0-164-0
924	HAA-ICR	Trichloroacetic acid	9.5	µg/L	EPA 552.2	1	1.0	6/26/98	7/6/98	7/7/98	0-164-0
925	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/26/98	n/a
926	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	6/25/98		6/25/98	n/a
927	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	6/20/98		6/20/98	n/a
928	TEMP	Cl2 Temperature	21.8	ºC	SM 2550 B	1	n/a	6/25/98		6/26/98	n/a
929	TEMP	Temperature	24.0	ºC	SM 2550 B	1	n/a	6/20/98		6/20/98	n/a
930	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	6/25/98		6/26/98	n/a
931	TOC-ICR	TOC	1.89	mg/L	SM 5310 C	1	0.50	6/20/98		6/20/98	7-0-301
932	TOC-ICR	TOC (Dupl)	1.89	mg/L	SM 5310 C	1	0.50	6/20/98		6/20/98	7-0-301
			1.89	**mg/L**	**0.0 % RPD**						
933	TOX-ICR	TOX	178	µg Cl-/L	SM 5320 B	1	25	6/26/98		7/1/98	12-0-159
934	TOX-ICR	TOX (Dupl)	176	µg Cl-/L	SM 5320 B	1	25	6/26/98		7/1/98	12-0-159
			177	**µg Cl-/L**	**1.1 % RPD**						
935	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.4	%	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
936	THM-ICR	Bromodichloromethane	8.7	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
937	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
938	THM-ICR	Chloroform	31.9	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
939	THM-ICR	Dibromochloromethane	1.4	µg/L	EPA 551.1	1	1.0	6/26/98	7/2/98	7/4/98	0-163-0
940	TURB	Turbidity	0.10	ntu	SM 2130 B	1	0.05	6/20/98		6/20/98	9-0-13
941	UV-ICR	UV	0.038	1/cm	SM 5910 B	1	0.009	6/20/98		6/20/98	8-0-204
942	UV-ICR	UV (Dupl)	0.038	1/cm	SM 5910 B	1	0.009	6/20/98		6/20/98	8-0-204

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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Study Title: ICR RSSCT #2

			0.038	**1/cm**	**0.0 % RPD**						

Sample ID: 122.Inf.B-2 **S&H ID:** 9806-701 **Date Sampled:** 6/26/98 4:25:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
943	TOC-ICR	TOC	1.88	mg/L	SM 5310 C	1	0.50	6/26/98		6/27/98	7-0-309
944	TOC-ICR	TOC (Dupl)	1.92	mg/L	SM 5310 C	1	0.50	6/26/98		6/27/98	7-0-309
			1.90	**mg/L**	**2.1 % RPD**						

Sample ID: 122.Inf.B-3 **S&H ID:** 9806-702 **Date Sampled:** 6/29/98 2:50:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
945	TOC-ICR	TOC	1.88	mg/L	SM 5310 C	1	0.50	6/29/98		6/30/98	7-0-312
946	TOC-ICR	TOC (Dupl)	1.91	mg/L	SM 5310 C	1	0.50	6/29/98		6/30/98	7-0-312
			1.90	**mg/L**	**1.6 % RPD**						

Sample ID: 122.Inf.B-4 **S&H ID:** 9806-703 **Date Sampled:** 7/6/98 2:35:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
947	Cl2Dose	Chlorine Dose	2.53	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/6/98		7/6/98	n/a
948	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/6/98		7/7/98	n/a
949	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	111.2	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
950	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.8	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
951	HAA-ICR	Bromochloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
952	HAA-ICR	Bromodichloroacetic acid	2.7	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
953	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
954	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
955	HAA-ICR	Dichloroacetic acid	11.4	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
956	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
957	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
958	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/7/98	7/13/98	7/14/98	0-171-0
959	HAA-ICR	Trichloroacetic acid	11.5	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
960	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/7/98	n/a
961	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/6/98	n/a
962	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/6/98	n/a
963	TEMP	Cl2 Temperature	21.7	ºC	SM 2550 B	1	n/a	7/6/98		7/7/98	n/a
964	TEMP	Temperature	18.2	ºC	SM 2550 B	1	n/a	7/6/98		7/6/98	n/a
965	TIME	Cl2 Incubation Time	24.5	hrs	n/a	1	n/a	7/6/98		7/7/98	n/a
966	TOC-ICR	TOC	1.84	mg/L	SM 5310 C	1	0.50	7/6/98		7/7/98	7-0-328
967	TOC-ICR	TOC (Dupl)	1.89	mg/L	SM 5310 C	1	0.50	7/6/98		7/7/98	7-0-328
			1.87	**mg/L**	**2.7 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

968	TOX-ICR	TOX	174	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/15/98	12-0-168
969	TOX-ICR	TOX (Dupl)	177	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/15/98	12-0-168
			176	**µg Cl-/L**	**1.7 % RPD**						
970	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.0	%	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
971	THM-ICR	Bromodichloromethane	9.9	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
972	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
973	THM-ICR	Chloroform	34.7	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
974	THM-ICR	Dibromochloromethane	1.3	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
975	UV-ICR	UV	0.038	1/cm	SM 5910 B	1	0.009	7/6/98		7/6/98	8-0-220
976	UV-ICR	UV (Dupl)	0.038	1/cm	SM 5910 B	1	0.009	7/6/98		7/6/98	8-0-220
			0.038	**1/cm**	**0.0 % RPD**						

Sample ID: 122.Inf.B-5 **S&H ID:** 9806-704 **Date Sampled:** 7/15/98 2:15:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
977	TOC-ICR	TOC	1.85	mg/L	SM 5310 C	1	0.50	7/15/98		7/18/98	7-0-341
978	TOC-ICR	TOC (Dupl)	1.87	mg/L	SM 5310 C	1	0.50	7/15/98		7/18/98	7-0-341
			1.86	**mg/L**	**1.1 % RPD**						

Sample ID: 122.Inf.B-6 **S&H ID:** 9806-705 **Date Sampled:** 7/20/98 10:00:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
979	Cl2Dose	Chlorine Dose	2.54	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/20/98		7/20/98	n/a
980	Cl2Res	Chlorine Residual	0.96	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/20/98		7/21/98	n/a
981	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	103.6	%	EPA 552.2	1	1.0	7/21/98	7/23/98	7/29/98	0-181-0
982	HAA-ICR	2-Bromopropionic acid (Surrogate)	102.4	%	EPA 552.2	1	1.0	7/21/98	7/23/98	7/29/98	0-181-0
983	HAA-ICR	Bromochloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/29/98	0-181-0
984	HAA-ICR	Bromodichloroacetic acid	3.0	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/29/98	0-181-0
985	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/21/98	7/23/98	7/29/98	0-181-0
986	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/29/98	0-181-0
987	HAA-ICR	Dichloroacetic acid	10.9	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/29/98	0-181-0
988	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/29/98	0-181-0
989	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/21/98	7/23/98	7/29/98	0-181-0
990	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/21/98	7/23/98	7/29/98	0-181-0
991	HAA-ICR	Trichloroacetic acid	12.9	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/29/98	0-181-0
992	pH	Cl2 pH - Final	7.4	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/21/98	n/a
993	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/20/98	n/a
994	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/20/98	n/a
995	TEMP	Cl2 Temperature	20.5	ºC	SM 2550 B	1	n/a	7/20/98		7/21/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

996	TEMP	Temperature	21.1	ºC	SM 2550 B	1	n/a	7/20/98		7/20/98	n/a
997	TIME	Cl2 Incubation Time	24.3	hrs	n/a	1	n/a	7/20/98		7/21/98	n/a
998	TOC-ICR	TOC	1.86	mg/L	SM 5310 C	1	0.50	7/20/98		7/20/98	7-0-343
999	TOC-ICR	TOC (Dupl)	1.85	mg/L	SM 5310 C	1	0.50	7/20/98		7/20/98	7-0-343
			1.86	**mg/L**	**0.5 % RPD**						
1000	TOX-ICR	TOX	170	µg Cl-/L	SM 5320 B	1	25	7/21/98		7/27/98	12-0-176
1001	TOX-ICR	TOX (Dupl)	169	µg Cl-/L	SM 5320 B	1	25	7/21/98		7/27/98	12-0-176
			170	**µg Cl-/L**	**0.6 % RPD**						
1002	THM-ICR	1,2,3-Trichloropropane (Surrogate)	90.4	%	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1003	THM-ICR	Bromodichloromethane	8.8	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1004	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1005	THM-ICR	Chloroform	29.5	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1006	THM-ICR	Dibromochloromethane	1.2	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1007	TURB	Turbidity	0.15	ntu	SM 2130 B	1	0.05	7/20/98		7/20/98	9-0-14
1008	UV-ICR	UV	0.038	1/cm	SM 5910 B	1	0.009	7/20/98		7/20/98	8-0-232
1009	UV-ICR	UV (Dupl)	0.038	1/cm	SM 5910 B	1	0.009	7/20/98		7/20/98	8-0-232
			0.038	**1/cm**	**0.0 % RPD**						

Sample ID: 122.10.Eff-31 **S&H ID:** 9807-82 **Date Sampled:** 7/5/98 9:36:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1010	Cl2Dose	Chlorine Dose	2.10	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/6/98		7/6/98	n/a
1011	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/6/98		7/7/98	n/a
1012	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	101.6	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
1013	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.8	%	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
1014	HAA-ICR	Bromochloroacetic acid	2.7	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
1015	HAA-ICR	Bromodichloroacetic acid	3.1	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
1016	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
1017	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
1018	HAA-ICR	Dichloroacetic acid	7.4	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
1019	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
1020	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/7/98	7/13/98	7/14/98	0-171-0
1021	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/7/98	7/13/98	7/14/98	0-171-0
1022	HAA-ICR	Trichloroacetic acid	7.3	µg/L	EPA 552.2	1	1.0	7/7/98	7/13/98	7/14/98	0-171-0
1023	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/7/98	n/a
1024	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/6/98		7/6/98	n/a
1025	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	7/5/98		7/5/98	n/a
1026	TEMP	Cl2 Temperature	21.7	ºC	SM 2550 B	1	n/a	7/6/98		7/7/98	n/a
1027	TEMP	Temperature	23.9	ºC	SM 2550 B	1	n/a	7/5/98		7/5/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

1028	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	7/6/98		7/7/98	n/a
1029	TOC-ICR	TOC	1.38	mg/L	SM 5310 C	1	0.50	7/5/98		7/6/98	7-0-326
1030	TOC-ICR	TOC (Dupl)	1.41	mg/L	SM 5310 C	1	0.50	7/5/98		7/6/98	7-0-326
			1.40	**mg/L**	**2.1 % RPD**						
1031	TOX-ICR	TOX	110	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/15/98	12-0-168
1032	TOX-ICR	TOX (Dupl)	112	µg Cl-/L	SM 5320 B	1	25	7/7/98		7/15/98	12-0-168
			111	**µg Cl-/L**	**1.8 % RPD**						
1033	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.4	%	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
1034	THM-ICR	Bromodichloromethane	9.3	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
1035	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
1036	THM-ICR	Chloroform	21.2	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
1037	THM-ICR	Dibromochloromethane	2.1	µg/L	EPA 551.1	1	1.0	7/7/98	7/14/98	7/15/98	0-172-0
1038	UV-ICR	UV	0.023	1/cm	SM 5910 B	1	0.009	7/5/98		7/6/98	8-0-219
1039	UV-ICR	UV (Dupl)	0.023	1/cm	SM 5910 B	1	0.009	7/5/98		7/6/98	8-0-219
			0.023	**1/cm**	**0.0 % RPD**						

Sample ID: 122.10.Eff-32 **S&H ID:** 9807-83 **Date Sampled:** 7/7/98 9:11:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1040	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	7/7/98		7/7/98	n/a
1041	TEMP	Temperature	23.0	ºC	SM 2550 B	1	n/a	7/7/98		7/7/98	n/a
1042	TOC-ICR	TOC	1.38	mg/L	SM 5310 C	1	0.50	7/7/98		7/7/98	7-0-328
1043	TOC-ICR	TOC (Dupl)	1.39	mg/L	SM 5310 C	1	0.50	7/7/98		7/7/98	7-0-328
			1.38	**mg/L**	**0.7 % RPD**						
1044	UV-ICR	UV	0.023	1/cm	SM 5910 B	1	0.009	7/7/98		7/8/98	8-0-222
1045	UV-ICR	UV (Dupl)	0.023	1/cm	SM 5910 B	1	0.009	7/7/98		7/8/98	8-0-222
			0.023	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-31 **S&H ID:** 9807-402 **Date Sampled:** 7/19/98 5:10:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1046	Cl2Dose	Chlorine Dose	2.01	mg/L as Cl2	SM 4500-Cl B	1	n/a	7/20/98		7/20/98	n/a
1047	Cl2Res	Chlorine Residual	0.96	mg/L as Cl2	SM 4500-Cl F	1	0.10	7/20/98		7/21/98	n/a
1048	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.4	%	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
1049	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.4	%	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
1050	HAA-ICR	Bromochloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
1051	HAA-ICR	Bromodichloroacetic acid	2.9	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
1052	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/21/98	7/23/98	7/24/98	0-181-0
1053	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
1054	HAA-ICR	Dichloroacetic acid	5.3	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

1055	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
1056	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	7/21/98	7/23/98	7/24/98	0-181-0
1057	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	7/21/98	7/23/98	7/24/98	0-181-0
1058	HAA-ICR	Trichloroacetic acid	5.9	µg/L	EPA 552.2	1	1.0	7/21/98	7/23/98	7/24/98	0-181-0
1059	pH	Cl2 pH - Final	7.5	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/21/98	n/a
1060	pH	Cl2 pH - Initial	7.5	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/20/98	n/a
1061	pH	pH	7.9	Unit	SM 4500-H+ B	1	n/a	7/19/98		7/19/98	n/a
1062	TEMP	Cl2 Temperature	20.5	ºC	SM 2550 B	1	n/a	7/20/98		7/21/98	n/a
1063	TEMP	Temperature	24.0	ºC	SM 2550 B	1	n/a	7/19/98		7/19/98	n/a
1064	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	7/20/98		7/21/98	n/a
1065	TOC-ICR	TOC	1.30	mg/L	SM 5310 C	1	0.50	7/19/98		7/19/98	7-0-342
1066	TOC-ICR	TOC (Dupl)	1.29	mg/L	SM 5310 C	1	0.50	7/19/98		7/19/98	7-0-342
			1.29	**mg/L**	**0.8 % RPD**						
1067	TOX-ICR	TOX	92	µg Cl-/L	SM 5320 B	1	25	7/21/98		7/24/98	12-0-175
1068	TOX-ICR	TOX (Dupl)	94	µg Cl-/L	SM 5320 B	1	25	7/21/98		7/24/98	12-0-175
			93	**µg Cl-/L**	**2.2 % RPD**						
1069	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.0	%	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1070	THM-ICR	Bromodichloromethane	7.8	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1071	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1072	THM-ICR	Chloroform	14.5	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1073	THM-ICR	Dibromochloromethane	2.1	µg/L	EPA 551.1	1	1.0	7/21/98	7/27/98	7/28/98	0-182-0
1074	UV-ICR	UV	0.020	1/cm	SM 5910 B	1	0.009	7/19/98		7/20/98	8-0-232
1075	UV-ICR	UV (Dupl)	0.020	1/cm	SM 5910 B	1	0.009	7/19/98		7/20/98	8-0-232
			0.020	**1/cm**	**0.0 % RPD**						

Sample ID: 122.20.Eff-32 **S&H ID:** 9807-403 **Date Sampled:** 7/20/98 9:15:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1076	pH	pH	7.9	Unit	SM 4500-H+ B	1	n/a	7/20/98		7/20/98	n/a
1077	TEMP	Temperature	24.2	ºC	SM 2550 B	1	n/a	7/20/98		7/20/98	n/a
1078	TOC-ICR	TOC	1.30	mg/L	SM 5310 C	1	0.50	7/20/98		7/21/98	7-0-344
1079	TOC-ICR	TOC (Dupl)	1.31	mg/L	SM 5310 C	1	0.50	7/20/98		7/21/98	7-0-344
			1.31	**mg/L**	**0.8 % RPD**						
1080	UV-ICR	UV	0.020	1/cm	SM 5910 B	1	0.009	7/20/98		7/21/98	8-0-234
1081	UV-ICR	UV (Dupl)	0.020	1/cm	SM 5910 B	1	0.009	7/20/98		7/21/98	8-0-234
			0.020	**1/cm**	**0.0 % RPD**						

End of laboratory test results

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
Phone: (513) 679-2200
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Quality Control Report

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 122
Study Title: ICR RSSCT #2

Analysis: ALK (Alkalinity) **Method:** SM 2320 B

QC Batch ID: 1-0-24

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	100	94	mg/L	94%		06/21/98	9806-698	5		
Matrix Spike (Dupl)	Matrix Spike	100	95	mg/L	95%		06/21/98	9806-698	5		
		100	**94**	**mg/L**	**94%**	**1.1 %**					
Method Blank	Method Blank		ND*	mg/L			06/21/98	9806-711	5		
Standard	Standard	100	94	mg/L	94%		06/21/98	9806-713	5		
Standard (Dupl)	Standard	100	96	mg/L	96%		06/21/98	9806-713	5		
		100	**95**	**mg/L**	**95%**	**2.1 %**					
Matrix Spike	Matrix Spike	100	98	mg/L	98%		07/02/98	9806-804	5		
Matrix Spike (Dupl)	Matrix Spike	100	99	mg/L	99%		07/02/98	9806-804	5		
		100	**99**	**mg/L**	**99%**	**1.0 %**					
Matrix Spike	Matrix Spike	100	99	mg/L	99%		07/02/98	9807-67	5		
Matrix Spike (Dupl)	Matrix Spike	100	96	mg/L	96%		07/02/98	9807-67	5		
		100	**98**	**mg/L**	**98%**	**3.1 %**					
Matrix Spike	Matrix Spike	100	99	mg/L	99%		07/02/98	9807-52	5		
Matrix Spike (Dupl)	Matrix Spike	100	100	mg/L	100%		07/02/98	9807-52	5		
		100	**100**	**mg/L**	**100%**	**2.0 %**					
Method Blank	Method Blank		ND*	mg/L			07/02/98	9807-66	5		
Standard	Standard	100	99	mg/L	99%		07/02/98	9807-68	5		
Standard (Dupl)	Standard	100	100	mg/L	100%		07/02/98	9807-68	5		
		100	**99**	**mg/L**	**99%**	**1.0 %**					

Analysis: ALK (Alkalinity) **Method:** SM 2320 B

QC Batch ID: 1-0-25

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	100	99	mg/L	99%		07/07/98	9806-699	5		
Matrix Spike (Dupl)	Matrix Spike	100	99	mg/L	99%		07/07/98	9806-699	5		
		100	**99**	**mg/L**	**99%**	**0.0 %**					
Method Blank	Method Blank		ND*	mg/L			07/07/98	9807-118	5		
Standard	Standard	100	99	mg/L	99%		07/07/98	9807-119	5		
Standard (Dupl)	Standard	100	100	mg/L	100%		07/07/98	9807-119	5		
		100	**100**	**mg/L**	**100%**	**1.0 %**					
Matrix Spike	Matrix Spike	100	96	mg/L	96%		07/08/98	9807-175	5		
Matrix Spike (Dupl)	Matrix Spike	100	97	mg/L	97%		07/08/98	9807-175	5		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

		100	**97**	**mg/L**	**97%**	**1.0 %**				
Matrix Spike	Matrix Spike	100	97	mg/L	97%		07/08/98	9807-53	5	
Matrix Spike (Dupl)	Matrix Spike	100	98	mg/L	98%		07/08/98	9807-53	5	
		100	**98**	**mg/L**	**98%**	**1.0 %**				
Method Blank	Method Blank		ND*	mg/L			07/08/98	9807-181	5	
Standard	Standard	100	101	mg/L	101%		07/08/98	9807-182	5	
Standard (Dupl)	Standard	100	100	mg/L	100%		07/08/98	9807-182	5	
		100	**101**	**mg/L**	**101%**	**1.0 %**				

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-298

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.06	mg/L	101%		9806-257	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.19	mg/L	105%		9806-257	0.5		
		4.00	**4.13**	**mg/L**	**103%**	**2.9 %**				
Method Blank	Method Blank		ND*	mg/L			9806-424	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-424	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9806-111	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.53	mg/L	106%		9806-111	0.5	50-150%	
		0.50	**0.53**	**mg/L**	**106%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.91	mg/L	98%		9806-357	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9806-357	0.5	90-110%	
		4.00	**3.94**	**mg/L**	**98%**	**1.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-300

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.23	mg/L	106%		9806-259	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.32	mg/L	108%		9806-259	0.5		
		4.00	**4.27**	**mg/L**	**107%**	**2.1 %**				
Method Blank	Method Blank		ND*	mg/L			9806-603	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-603	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.54	mg/L	108%		9806-111	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9806-111	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.98	mg/L	100%		9806-357	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9806-357	0.5	90-110%	
		4.00	**4.00**	**mg/L**	**100%**	**1.0 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-301

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.96	mg/L	99%		9806-484	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.92	mg/L	98%		9806-484	0.5		
		4.00	**3.94**	**mg/L**	**98%**	**1.3 %**				
Method Blank	Method Blank		ND*	mg/L			9806-706	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-706	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.56	mg/L	112%		9806-111	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.55	mg/L	110%		9806-111	0.5	50-150%	
		0.50	**0.55**	**mg/L**	**110%**	**1.8 %**			50-150%	20%
Standard	Standard	4.00	4.02	mg/L	100%		9806-357	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9806-357	0.5	90-110%	
		4.00	**4.02**	**mg/L**	**100%**	**0.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-302

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9806-514	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.97	mg/L	99%		9806-514	0.5		
		4.00	**3.98**	**mg/L**	**100%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9806-712	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-712	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9806-111	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9806-111	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	3.94	mg/L	98%		9806-357	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.94	mg/L	98%		9806-357	0.5	90-110%	
		4.00	**3.94**	**mg/L**	**98%**	**0.0 %**			90-110%	10%
Standard	Standard	10.00	9.80	mg/L	98%		9806-118	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.91	mg/L	99%		9806-118	0.5	90-110%	
		10.00	**9.86**	**mg/L**	**99%**	**1.1 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-305

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	4.08	mg/L	102%		9806-526	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.84	mg/L	96%		9806-526	0.5		
		4.00	**3.96**	**mg/L**	**99%**	**6.3 %**				

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Method Blank	Method Blank		ND*	mg/L			9806-738	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-738	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.54	mg/L	108%		9806-111	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.57	mg/L	114%		9806-111	0.5	50-150%	
		0.50	**0.56**	**mg/L**	**112%**	**5.4 %**			50-150%	20%
Standard	Standard	4.00	3.91	mg/L	98%		9806-357	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.95	mg/L	99%		9806-357	0.5	90-110%	
		4.00	**3.93**	**mg/L**	**98%**	**1.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-306

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.06	mg/L	101%		9806-531	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.06	mg/L	101%		9806-531	0.5		
		4.00	**4.06**	**mg/L**	**101%**	**0.0 %**				
Method Blank	Method Blank		ND*	mg/L			9806-752	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-752	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9806-111	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9806-111	0.5	50-150%	
		0.50	**0.53**	**mg/L**	**106%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	4.01	mg/L	100%		9806-357	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.06	mg/L	101%		9806-357	0.5	90-110%	
		4.00	**4.04**	**mg/L**	**101%**	**1.2 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-307

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.01	mg/L	100%		9806-629	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.02	mg/L	100%		9806-629	0.5		
		4.00	**4.01**	**mg/L**	**100%**	**0.2 %**				
Method Blank	Method Blank		ND*	mg/L			9806-756	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-756	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.54	mg/L	108%		9806-111	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.53	mg/L	106%		9806-111	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9806-751	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9806-751	0.5	90-110%	
		4.00	**4.00**	**mg/L**	**100%**	**1.2 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-309

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	4.04	mg/L	101%		9806-537	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.02	mg/L	100%		9806-537	0.5		
		4.00	**4.03**	**mg/L**	**101%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9806-814	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-814	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.56	mg/L	112%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.56	mg/L	112%		9806-615	0.5	50-150%	
		0.50	**0.56**	**mg/L**	**112%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	4.00	mg/L	100%		9806-751	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.98	mg/L	100%		9806-751	0.5	90-110%	
		4.00	**3.99**	**mg/L**	**100%**	**0.5 %**			90-110%	10%
Standard	Standard	10.00	9.92	mg/L	99%		9806-118	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.99	mg/L	100%		9806-118	0.5	90-110%	
		10.00	**9.96**	**mg/L**	**100%**	**0.7 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-311

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.98	mg/L	100%		9806-543	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.92	mg/L	98%		9806-543	0.5		
		4.00	**3.95**	**mg/L**	**99%**	**1.3 %**				
Method Blank	Method Blank		ND*	mg/L			9806-823	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-823	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.57	mg/L	114%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.57	mg/L	114%		9806-615	0.5	50-150%	
		0.50	**0.57**	**mg/L**	**114%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.93	mg/L	98%		9806-751	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9806-751	0.5	90-110%	
		4.00	**3.95**	**mg/L**	**99%**	**1.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-312

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9806-670	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.98	mg/L	100%		9806-670	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**0.3 %**				

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 122
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Method Blank	Method Blank		ND*	mg/L			9806-843	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-843	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.57	mg/L	114%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.58	mg/L	116%		9806-615	0.5	50-150%	
		0.50	**0.57**	**mg/L**	**114%**	**1.8 %**			50-150%	20%
Standard	Standard	4.00	3.98	mg/L	100%		9806-751	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9806-751	0.5	90-110%	
		4.00	**4.01**	**mg/L**	**100%**	**1.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-316

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.05	mg/L	101%		9806-544	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.82	mg/L	95%		9806-544	0.5		
		4.00	**3.94**	**mg/L**	**98%**	**5.8 %**				
Method Blank	Method Blank		ND*	mg/L			9806-851	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9806-851	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.55	mg/L	110%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.55	mg/L	110%		9806-615	0.5	50-150%	
		0.50	**0.55**	**mg/L**	**110%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9806-751	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.01	mg/L	100%		9806-751	0.5	90-110%	
		4.00	**3.99**	**mg/L**	**100%**	**1.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-322

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.90	mg/L	97%		9806-565	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.91	mg/L	98%		9806-565	0.5		
		4.00	**3.91**	**mg/L**	**98%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9807-79	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-79	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.60	mg/L	120%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.58	mg/L	116%		9806-615	0.5	50-150%	
		0.50	**0.59**	**mg/L**	**118%**	**3.4 %**			50-150%	20%
Standard	Standard	4.00	3.96	mg/L	99%		9806-751	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.94	mg/L	98%		9806-751	0.5	90-110%	
		4.00	**3.95**	**mg/L**	**99%**	**0.5 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-324

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.97	mg/L	99%		9806-566	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.01	mg/L	100%		9806-566	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**0.8 %**				
Method Blank	Method Blank		ND*	mg/L			9807-89	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-89	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.58	mg/L	116%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.57	mg/L	114%		9806-615	0.5	50-150%	
		0.50	**0.58**	**mg/L**	**116%**	**1.7 %**			50-150%	20%
Standard	Standard	4.00	3.95	mg/L	99%		9806-751	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9806-751	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**1.8 %**			90-110%	10%
Standard	Standard	10.00	10.04	mg/L	100%		9807-78	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.10	mg/L	101%		9807-78	0.5	90-110%	
		10.00	**10.07**	**mg/L**	**101%**	**0.6 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-326

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.93	mg/L	98%		9807-82	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.86	mg/L	96%		9807-82	0.5		
		4.00	**3.89**	**mg/L**	**97%**	**1.5 %**				
Method Blank	Method Blank		ND*	mg/L			9807-102	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-102	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.60	mg/L	120%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.57	mg/L	114%		9806-615	0.5	50-150%	
		0.50	**0.59**	**mg/L**	**118%**	**5.1 %**			50-150%	20%
Standard	Standard	4.00	3.98	mg/L	100%		9806-751	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9806-751	0.5	90-110%	
		4.00	**4.01**	**mg/L**	**100%**	**1.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-328

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.86	mg/L	96%		9806-683	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.95	mg/L	99%		9806-683	0.5		
		4.00	**3.91**	**mg/L**	**98%**	**2.3 %**				

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Method Blank	Method Blank		ND*	mg/L			9807-109	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-109	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.55	mg/L	110%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.55	mg/L	110%		9806-615	0.5	50-150%	
		0.50	**0.55**	**mg/L**	**110%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.93	mg/L	98%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.99	mg/L	100%		9807-101	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**1.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-331

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.85	mg/L	96%		9806-576	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.96	mg/L	99%		9806-576	0.5		
		4.00	**3.90**	**mg/L**	**97%**	**2.6 %**				
Method Blank	Method Blank		ND*	mg/L			9807-124	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-124	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.57	mg/L	114%		9806-615	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.58	mg/L	116%		9806-615	0.5	50-150%	
		0.50	**0.57**	**mg/L**	**114%**	**1.8 %**			50-150%	20%
Standard	Standard	4.00	3.94	mg/L	98%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9807-101	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**0.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-333

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.00	mg/L	100%		9806-579	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.94	mg/L	98%		9806-579	0.5		
		4.00	**3.97**	**mg/L**	**99%**	**1.5 %**				
Method Blank	Method Blank		ND*	mg/L			9807-194	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-194	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.54	mg/L	108%		9807-92	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9807-92	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.93	mg/L	98%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.95	mg/L	99%		9807-101	0.5	90-110%	
		4.00	**3.94**	**mg/L**	**98%**	**0.5 %**			90-110%	10%
Standard	Standard	10.00	9.74	mg/L	97%		9807-78	0.5	90-110%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard (Dupl)	Standard	10.00	9.89	mg/L	99%		9807-78	0.5	90-110%	
		10.00	**9.82**	**mg/L**	**98%**	**1.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-337

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.96	mg/L	99%		9806-686	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.01	mg/L	100%		9806-686	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**1.3 %**				
Method Blank	Method Blank		ND*	mg/L			9807-208	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-208	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.54	mg/L	108%		9807-92	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9807-92	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.93	mg/L	98%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.92	mg/L	98%		9807-101	0.5	90-110%	
		4.00	**3.92**	**mg/L**	**98%**	**0.3 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-340

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.88	mg/L	97%		9807-247	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.00	mg/L	100%		9807-247	0.5		
		4.00	**3.94**	**mg/L**	**98%**	**3.3 %**				
Method Blank	Method Blank		ND*	mg/L			9807-398	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-398	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.54	mg/L	108%		9807-92	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.53	mg/L	106%		9807-92	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	3.98	mg/L	100%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9807-101	0.5	90-110%	
		4.00	**3.97**	**mg/L**	**99%**	**0.5 %**			90-110%	10%
Standard	Standard	10.00	9.97	mg/L	100%		9807-78	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.96	mg/L	100%		9807-78	0.5	90-110%	
		10.00	**9.96**	**mg/L**	**100%**	**0.1 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-341

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9806-704	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.00	mg/L	100%		9806-704	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9807-400	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-400	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.55	mg/L	110%		9807-92	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.55	mg/L	110%		9807-92	0.5	50-150%	
		0.50	**0.55**	**mg/L**	**110%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.93	mg/L	98%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.94	mg/L	98%		9807-101	0.5	90-110%	
		4.00	**3.93**	**mg/L**	**98%**	**0.3 %**			90-110%	10%
Standard	Standard	10.00	9.94	mg/L	99%		9807-78	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.93	mg/L	99%		9807-78	0.5	90-110%	
		10.00	**9.94**	**mg/L**	**99%**	**0.1 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-342

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.92	mg/L	98%		9807-332	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.94	mg/L	98%		9807-332	0.5		
		4.00	**3.93**	**mg/L**	**98%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9807-401	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-401	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.56	mg/L	112%		9807-92	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.55	mg/L	110%		9807-92	0.5	50-150%	
		0.50	**0.56**	**mg/L**	**112%**	**1.8 %**			50-150%	20%
Standard	Standard	4.00	4.01	mg/L	100%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.03	mg/L	101%		9807-101	0.5	90-110%	
		4.00	**4.02**	**mg/L**	**100%**	**0.5 %**			90-110%	10%
Standard	Standard	4.00	3.96	mg/L	99%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.00	mg/L	100%		9807-101	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**1.0 %**			90-110%	10%
Standard	Standard	10.00	9.96	mg/L	100%		9807-78	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.10	mg/L	101%		9807-78	0.5	90-110%	
		10.00	**10.03**	**mg/L**	**100%**	**1.4 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-343

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.14	mg/L	103%		9807-334	0.5		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Matrix Spike (Dupl)	Matrix Spike	4.00	4.18	mg/L	104%		9807-334	0.5		
		4.00	**4.16**	**mg/L**	**104%**	**1.0 %**				
Method Blank	Method Blank		ND*	mg/L			9807-411	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-411	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9807-92	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9807-92	0.5	50-150%	
		0.50	**0.53**	**mg/L**	**106%**	**3.8 %**			50-150%	20%
Standard	Standard	4.00	3.96	mg/L	99%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.00	mg/L	100%		9807-101	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**1.0 %**			90-110%	10%
Standard	Standard	10.00	9.75	mg/L	97%		9807-78	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.80	mg/L	98%		9807-78	0.5	90-110%	
		10.00	**9.77**	**mg/L**	**98%**	**0.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-344

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.05	mg/L	101%		9807-254	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.98	mg/L	100%		9807-254	0.5		
		4.00	**4.02**	**mg/L**	**100%**	**1.7 %**				
Method Blank	Method Blank		ND*	mg/L			9807-423	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9807-423	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.51	mg/L	102%		9807-92	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9807-92	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.99	mg/L	100%		9807-101	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.03	mg/L	101%		9807-101	0.5	90-110%	
		4.00	**4.01**	**mg/L**	**100%**	**1.0 %**			90-110%	10%
Standard	Standard	10.00	10.03	mg/L	100%		9807-78	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.17	mg/L	102%		9807-78	0.5	90-110%	
		10.00	**10.10**	**mg/L**	**101%**	**1.4 %**			90-110%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-204

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9806-709	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-709	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9806-709	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-709	0.009		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9806-614	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9806-614	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-613	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9806-613	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-205

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Method Blank	Method Blank		ND*	1/cm			9806-710	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-710	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9806-710	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-710	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9806-614	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9806-614	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-613	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9806-613	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-207

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Method Blank	Method Blank		ND*	1/cm			9806-739	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-739	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9806-739	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-739	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9806-614	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9806-614	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-613	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9806-613	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-208

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9806-761	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-761	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9806-761	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-761	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-613	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.087	1/cm	99%		9806-613	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-209

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9806-813	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-813	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9806-813	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-813	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.009	1/cm	100%		9806-736	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.009	1/cm	100%		9806-736	0.009	75-125%	
		0.009	**0.009**	**1/cm**	**100%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.085	1/cm	97%		9806-737	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9806-737	0.009	85-115%	
		0.088	**0.085**	**1/cm**	**97%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-211

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9806-829	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-829	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9806-829	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-829	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.009	1/cm	100%		9806-736	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
		0.009	**0.009**	**1/cm**	**100%**	**11.1 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-737	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9806-737	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-212

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9806-838	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-838	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9806-838	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9806-838	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.009	1/cm	100%		9806-736	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.009	1/cm	100%		9806-736	0.009	75-125%	
		0.009	**0.009**	**1/cm**	**100%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.085	1/cm	97%		9806-737	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9806-737	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-213

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9807-1	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-1	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-1	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-1	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-859	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9806-859	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-215

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9807-81	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-81	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-81	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-81	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-859	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.087	1/cm	99%		9806-859	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-218

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9807-91	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-91	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-91	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-91	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9806-736	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-859	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9806-859	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-219

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9807-99	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-99	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-99	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-99	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9807-93	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**12.5 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-859	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9806-859	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-220

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9807-107	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-107	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-107	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-107	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9806-859	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.087	1/cm	99%		9806-859	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-222

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9807-123	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-123	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-123	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-123	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9807-93	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9807-93	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9807-98	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9807-98	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-225

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9807-201	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-201	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-201	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-201	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9807-98	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9807-98	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-227

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9807-218	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-218	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-218	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-218	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9807-98	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9807-98	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-228

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9807-393	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-393	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-393	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-393	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9807-93	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.086	1/cm	98%		9807-98	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.086	1/cm	98%		9807-98	0.009	85-115%	
		0.088	**0.086**	**1/cm**	**98%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-232

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9807-418	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-418	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-418	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-418	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.010	1/cm	111%		9807-416	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.009	1/cm	100%		9807-416	0.009	75-125%	
		0.009	**0.009**	**1/cm**	**100%**	**11.1 %**			75-125%	20%
Standard	Standard	0.088	0.096	1/cm	109%		9807-417	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.096	1/cm	109%		9807-417	0.009	85-115%	
		0.088	**0.096**	**1/cm**	**109%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-234

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9807-428	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-428	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9807-428	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9807-428	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.009	1/cm	100%		9807-416	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.009	1/cm	100%		9807-416	0.009	75-125%	
		0.009	**0.009**	**1/cm**	**100%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.096	1/cm	109%		9807-417	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.096	1/cm	109%		9807-417	0.009	85-115%	
		0.088	**0.096**	**1/cm**	**109%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: TURB (Turbidity) **Method:** SM 2130 B

QC Batch ID: 9-0-13

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard	Standard	5.41	5.50	ntu	102%		06/20/98	9807-108	0.05		
Standard	Standard	5.41	5.50	ntu	102%		06/21/98	9807-108	0.05		
Standard	Standard	5.41	5.50	ntu	102%		06/24/98	9807-108	0.05		
Standard	Standard	5.41	5.52	ntu	102%		06/26/98	9807-108	0.05		
Standard	Standard	5.41	5.45	ntu	101%		07/02/98	9807-108	0.05		
Standard	Standard	5.41	5.48	ntu	101%		07/02/98	9807-108	0.05		

Analysis: TURB (Turbidity) **Method:** SM 2130 B

QC Batch ID: 9-0-14

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard	Standard	5.41	5.49	ntu	101%		07/08/98	9807-108	0.05		
Standard	Standard	5.41	5.48	ntu	101%		07/10/98	9807-108	0.05		
Standard	Standard	5.41	5.47	ntu	101%		07/13/98	9807-108	0.05		
Standard	Standard	5.41	5.46	ntu	101%		07/16/98	9807-108	0.05		
Standard	Standard	5.41	5.46	ntu	101%		07/20/98	9807-108	0.05		
Standard	Standard	5.41	5.48	ntu	101%		07/24/98	9807-108	0.05		
Standard	Standard	5.41	5.45	ntu	101%		07/27/98	9807-108	0.05		
Standard	Standard	5.41	5.47	ntu	101%		07/27/98	9807-108	0.05		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-158

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	200	212	µg Cl-/L	106%		9806-492	25		
Matrix Spike (Dupl)	Matrix Spike	200	207	µg Cl-/L	103%		9806-492	25		
		200	**210**	**µg Cl-/L**	**105%**	**1.9 %**				
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9806-841	25	75-125%	
Standard - TCP Aqueous	Standard	200	208	µg Cl-/L	104%		9806-840	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9806-842	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-159

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	22	µg Cl-/L	88%		9806-857	25	75-125%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard - TCP Aqueous	Standard	200	209	µg Cl-/L	104%		9806-856	25	85-115%
System Blank	Blank		ND*	µg Cl-/L			9806-858	25	

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-160

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9807-6	25	75-125%	
Standard - TCP Aqueous	Standard	200	205	µg Cl-/L	102%		9807-5	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-7	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-161

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	200	217	µg Cl-/L	109%		9806-532	25		
Matrix Spike (Dupl)	Matrix Spike	200	214	µg Cl-/L	107%		9806-532	25		
		200	**216**	**µg Cl-/L**	**108%**	**1.4 %**				
Standard - TCP Aqueous	Standard	25	28	µg Cl-/L	112%		9807-96	25	75-125%	
Standard - TCP Aqueous	Standard	200	209	µg Cl-/L	104%		9807-95	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-97	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-162

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9807-116	25	75-125%	
Standard - TCP Aqueous (Dupl)	Standard	200	212	µg Cl-/L	106%		9807-115	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-117	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-164

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	20	µg Cl-/L	80%		9807-186	25	75-125%	
Standard - TCP Aqueous	Standard	200	208	µg Cl-/L	104%		9807-185	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-187	25		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-165

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	229	µg Cl-/L	115%		9806-688	25		
Matrix Spike (Dupl)	Matrix Spike	200	232	µg Cl-/L	116%		9806-688	25		
		200	**231**	**µg Cl-/L**	**116%**	**1.7 %**				
Standard - TCP Aqueous	Standard	25	28	µg Cl-/L	112%		9807-199	25	75-125%	
Standard - TCP Aqueous	Standard	200	227	µg Cl-/L	114%		9807-198	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-200	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-166

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	230	µg Cl-/L	115%		9806-646	25		
Matrix Spike (Dupl)	Matrix Spike	200	233	µg Cl-/L	117%		9806-646	25		
		200	**232**	**µg Cl-/L**	**116%**	**1.3 %**				
Standard - TCP Aqueous	Standard	25	26	µg Cl-/L	104%		9807-216	25	75-125%	
Standard - TCP Aqueous	Standard	200	227	µg Cl-/L	114%		9807-215	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-217	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-168

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	199	µg Cl-/L	100%		9807-18	25		
Matrix Spike (Dupl)	Matrix Spike	200	200	µg Cl-/L	100%		9807-18	25		
		200	**199**	**µg Cl-/L**	**100%**	**0.5 %**				
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9807-233	25	75-125%	
Standard - TCP Aqueous	Standard	200	195	µg Cl-/L	97%		9807-232	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-234	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-172

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9807-421	25	75-125%	
Standard - TCP Aqueous	Standard	200	199	µg Cl-/L	100%		9807-420	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-422	25		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-175

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9807-454	25	75-125%	
Standard - TCP Aqueous	Standard	200	202	µg Cl-/L	101%		9807-453	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-455	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-176

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	200	202	µg Cl-/L	101%		9807-317	25		
Matrix Spike (Dupl)	Matrix Spike	200	204	µg Cl-/L	102%		9807-317	25		
		200	**203**	**µg Cl-/L**	**101%**	**1.0 %**				
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9807-463	25	75-125%	
Standard - TCP Aqueous	Standard	200	198	µg Cl-/L	99%		9807-462	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9807-464	25		

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-163-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	1.3	1.3	µg/L		0.0%	9806-488	1		
Bromodichloromethane	Matrix Spike	40.0	43.1	µg/L	108%		9806-495	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9807-59	1		
Bromodichloromethane	Secondary Source Std	20.0	18.9	µg/L	94%		9807-60	1	70-130%	
Bromodichloromethane	Standard	20.0	19.9	µg/L	99%		9807-61	1	80-120%	
Bromodichloromethane	Standard	20.0	20.7	µg/L	103%		9807-61	1	80-120%	
Bromodichloromethane	Standard	40.0	42.3	µg/L	106%		9807-62	1	80-120%	
Bromoform	Duplicate	9.2	9.4	µg/L		2.2%	9806-488	1		
Bromoform	Matrix Spike	40.0	44.7	µg/L	112%		9806-495	1		
Bromoform	Method Blank		ND*	µg/L			9807-59	1		
Bromoform	Secondary Source Std	20.0	18.0	µg/L	90%		9807-60	1	70-130%	
Bromoform	Standard	20.0	19.0	µg/L	95%		9807-61	1	80-120%	
Bromoform	Standard	20.0	20.2	µg/L	101%		9807-61	1	80-120%	
Bromoform	Standard	40.0	41.4	µg/L	103%		9807-62	1	80-120%	
Chloroform	Duplicate	ND	ND	µg/L		NA	9806-488	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Matrix Spike	40.0	44.5	µg/L	111%		9806-495	1	
Chloroform	Method Blank		ND*	µg/L			9807-59	1	
Chloroform	Secondary Source Std	20.0	18.8	µg/L	94%		9807-60	1	70-130%
Chloroform	Standard	20.0	18.9	µg/L	94%		9807-61	1	80-120%
Chloroform	Standard	20.0	19.7	µg/L	98%		9807-61	1	80-120%
Chloroform	Standard	40.0	43.2	µg/L	108%		9807-62	1	80-120%
Dibromochloromethane	Duplicate	4.7	4.6	µg/L		2.2%	9806-488	1	
Dibromochloromethane	Matrix Spike	40.0	44.0	µg/L	110%		9806-495	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9807-59	1	
Dibromochloromethane	Secondary Source Std	20.0	18.5	µg/L	93%		9807-60	1	70-130%
Dibromochloromethane	Standard	20.0	19.4	µg/L	97%		9807-61	1	80-120%
Dibromochloromethane	Standard	20.0	20.9	µg/L	104%		9807-61	1	80-120%
Dibromochloromethane	Standard	40.0	42.4	µg/L	106%		9807-62	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-166-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	5.8	5.9	µg/L		1.7%	9806-630	1		
Bromodichloromethane	Matrix Spike	40.0	40.5	µg/L	101%		9806-771	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9807-125	1		
Bromodichloromethane	Secondary Source Std	20.0	20.8	µg/L	104%		9807-126	1	70-130%	
Bromodichloromethane	Standard	20.0	20.0	µg/L	100%		9807-127	1	80-120%	
Bromodichloromethane	Standard	20.0	20.5	µg/L	102%		9807-127	1	80-120%	
Bromodichloromethane	Standard	40.0	40.5	µg/L	101%		9807-128	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9806-630	1		
Bromoform	Matrix Spike	40.0	45.7	µg/L	114%		9806-771	1		
Bromoform	Method Blank		ND*	µg/L			9807-125	1		
Bromoform	Secondary Source Std	20.0	19.8	µg/L	99%		9807-126	1	70-130%	
Bromoform	Standard	20.0	19.3	µg/L	97%		9807-127	1	80-120%	
Bromoform	Standard	20.0	18.3	µg/L	92%		9807-127	1	80-120%	
Bromoform	Standard	40.0	38.2	µg/L	96%		9807-128	1	80-120%	
Chloroform	Duplicate	6.8	6.9	µg/L		1.5%	9806-630	1		
Chloroform	Matrix Spike	40.0	43.9	µg/L	110%		9806-771	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Method Blank		ND*	µg/L			9807-125	1		
Chloroform	Secondary Source Std	20.0	20.7	µg/L	103%		9807-126	1	70-130%	
Chloroform	Standard	20.0	19.3	µg/L	97%		9807-127	1	80-120%	
Chloroform	Standard	20.0	19.9	µg/L	99%		9807-127	1	80-120%	
Chloroform	Standard	40.0	41.2	µg/L	103%		9807-128	1	80-120%	
Dibromochloromethane	Duplicate	2.8	2.9	µg/L		3.5%	9806-630	1		
Dibromochloromethane	Matrix Spike	40.0	41.9	µg/L	105%		9806-771	1		
Dibromochloromethane	Method Blank		ND*	µg/L			9807-125	1		
Dibromochloromethane	Secondary Source Std	20.0	20.4	µg/L	102%		9807-126	1	70-130%	
Dibromochloromethane	Standard	20.0	20.1	µg/L	101%		9807-127	1	80-120%	
Dibromochloromethane	Standard	20.0	21.1	µg/L	106%		9807-127	1	80-120%	
Dibromochloromethane	Standard	40.0	41.2	µg/L	103%		9807-128	1	80-120%	

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-172-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	14.8	15.0	µg/L		1.3%	9806-780	1		
Bromodichloromethane	Matrix Spike	40.0	40.4	µg/L	101%		9806-667	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9807-227	1		
Bromodichloromethane	Secondary Source Std	20.0	21.9	µg/L	110%		9807-228	1	70-130%	
Bromodichloromethane	Standard	20.0	19.4	µg/L	97%		9807-229	1	80-120%	
Bromodichloromethane	Standard	20.0	19.8	µg/L	99%		9807-229	1	80-120%	
Bromodichloromethane	Standard	40.0	40.8	µg/L	102%		9807-230	1	80-120%	
Bromoform	Duplicate	11.0	11.5	µg/L		4.4%	9806-780	1		
Bromoform	Matrix Spike	40.0	38.8	µg/L	97%		9806-667	1		
Bromoform	Method Blank		ND*	µg/L			9807-227	1		
Bromoform	Secondary Source Std	20.0	18.4	µg/L	92%		9807-228	1	70-130%	
Bromoform	Standard	20.0	17.1	µg/L	86%		9807-229	1	80-120%	
Bromoform	Standard	20.0	17.7	µg/L	89%		9807-229	1	80-120%	
Bromoform	Standard	40.0	37.3	µg/L	93%		9807-230	1	80-120%	
Chloroform	Duplicate	6.5	6.6	µg/L		1.5%	9806-780	1		
Chloroform	Matrix Spike	40.0	41.6	µg/L	104%		9806-667	1		
Chloroform	Method Blank		ND*	µg/L			9807-227	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Secondary Source Std	20.0	22.2	µg/L	111%		9807-228	1	70-130%
Chloroform	Standard	20.0	18.6	µg/L	93%		9807-229	1	80-120%
Chloroform	Standard	20.0	19.1	µg/L	96%		9807-229	1	80-120%
Chloroform	Standard	40.0	41.2	µg/L	103%		9807-230	1	80-120%
Dibromochloromethane	Duplicate	22.0	22.2	µg/L		0.9%	9806-780	1	
Dibromochloromethane	Matrix Spike	40.0	41.6	µg/L	104%		9806-667	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9807-227	1	
Dibromochloromethane	Secondary Source Std	20.0	21.6	µg/L	108%		9807-228	1	70-130%
Dibromochloromethane	Standard	20.0	19.6	µg/L	98%		9807-229	1	80-120%
Dibromochloromethane	Standard	20.0	20.4	µg/L	102%		9807-229	1	80-120%
Dibromochloromethane	Standard	40.0	41.2	µg/L	103%		9807-230	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-178-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	ND	ND	µg/L		NA	9807-135	1		
Bromodichloromethane	Matrix Spike	40.0	41.3	µg/L	103%		9807-150	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9807-412	1		
Bromodichloromethane	Secondary Source Std	20.0	20.9	µg/L	104%		9807-413	1	70-130%	
Bromodichloromethane	Standard	20.0	19.7	µg/L	98%		9807-414	1	80-120%	
Bromodichloromethane	Standard	20.0	21.2	µg/L	106%		9807-414	1	80-120%	
Bromodichloromethane	Standard	40.0	37.8	µg/L	94%		9807-415	1	80-120%	
Bromoform	Duplicate	1.2	1.1	µg/L		8.7%	9807-135	1		
Bromoform	Matrix Spike	40.0	43.2	µg/L	108%		9807-150	1		
Bromoform	Method Blank		ND*	µg/L			9807-412	1		
Bromoform	Secondary Source Std	20.0	19.8	µg/L	99%		9807-413	1	70-130%	
Bromoform	Standard	20.0	19.9	µg/L	99%		9807-414	1	80-120%	
Bromoform	Standard	20.0	21.6	µg/L	108%		9807-414	1	80-120%	
Bromoform	Standard	40.0	39.5	µg/L	99%		9807-415	1	80-120%	
Chloroform	Duplicate	ND	ND	µg/L		NA	9807-135	1		
Chloroform	Matrix Spike	40.0	44.0	µg/L	110%		9807-150	1		
Chloroform	Method Blank		ND*	µg/L			9807-412	1		
Chloroform	Secondary Source Std	20.0	21.1	µg/L	106%		9807-413	1	70-130%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Standard	20.0	19.5	µg/L	97%		9807-414	1	80-120%
Chloroform	Standard	20.0	21.1	µg/L	106%		9807-414	1	80-120%
Chloroform	Standard	40.0	38.1	µg/L	95%		9807-415	1	80-120%
Dibromochloromethane	Duplicate	ND	ND	µg/L		NA	9807-135	1	
Dibromochloromethane	Matrix Spike	40.0	42.7	µg/L	107%		9807-150	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9807-412	1	
Dibromochloromethane	Secondary Source Std	20.0	20.3	µg/L	102%		9807-413	1	70-130%
Dibromochloromethane	Standard	20.0	19.9	µg/L	99%		9807-414	1	80-120%
Dibromochloromethane	Standard	20.0	21.6	µg/L	108%		9807-414	1	80-120%
Dibromochloromethane	Standard	40.0	38.8	µg/L	97%		9807-415	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-182-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	7.2	7.4	µg/L		2.7%	9806-686	1		
Bromodichloromethane	Matrix Spike	40.0	45.5	µg/L	114%		9807-333	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9807-466	1		
Bromodichloromethane	Secondary Source Std	20.0	22.1	µg/L	111%		9807-467	1	70-130%	
Bromodichloromethane	Standard	20.0	20.7	µg/L	103%		9807-468	1	80-120%	
Bromodichloromethane	Standard	20.0	20.4	µg/L	102%		9807-468	1	80-120%	
Bromodichloromethane	Standard	40.0	36.4	µg/L	91%		9807-469	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9806-686	1		
Bromoform	Matrix Spike	40.0	39.3	µg/L	98%		9807-333	1		
Bromoform	Method Blank		ND*	µg/L			9807-466	1		
Bromoform	Secondary Source Std	20.0	18.9	µg/L	94%		9807-467	1	70-130%	
Bromoform	Standard	20.0	18.3	µg/L	92%		9807-468	1	80-120%	
Bromoform	Standard	20.0	16.9	µg/L	84%		9807-468	1	80-120%	
Bromoform	Standard	40.0	38.0	µg/L	95%		9807-469	1	80-120%	
Chloroform	Duplicate	11.1	11.5	µg/L		3.5%	9806-686	1		
Chloroform	Matrix Spike	40.0	44.4	µg/L	111%		9807-333	1		
Chloroform	Method Blank		ND*	µg/L			9807-466	1		
Chloroform	Secondary Source Std	20.0	22.1	µg/L	111%		9807-467	1	70-130%	
Chloroform	Standard	20.0	20.4	µg/L	102%		9807-468	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Standard	20.0	20.1	µg/L	101%		9807-468	1	80-120%
Chloroform	Standard	40.0	36.2	µg/L	91%		9807-469	1	80-120%
Dibromochloromethane	Duplicate	2.7	2.7	µg/L		0.0%	9806-686	1	
Dibromochloromethane	Matrix Spike	40.0	45.8	µg/L	115%		9807-333	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9807-466	1	
Dibromochloromethane	Secondary Source Std	20.0	21.5	µg/L	108%		9807-467	1	70-130%
Dibromochloromethane	Standard	20.0	20.8	µg/L	104%		9807-468	1	80-120%
Dibromochloromethane	Standard	20.0	20.3	µg/L	102%		9807-468	1	80-120%
Dibromochloromethane	Standard	40.0	37.7	µg/L	94%		9807-469	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-164-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	1.1	1.0	µg/L		9.5%	9806-491	1		
Bromochloroacetic acid	Matrix Spike	40.0	33.2	µg/L	83%		9806-515	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9807-103	1		
Bromochloroacetic acid	Secondary Source Std	20.0	18.5	µg/L	93%		9807-104	1	70-130%	
Bromochloroacetic acid	Standard	20.0	18.8	µg/L	94%		9807-105	1	80-120%	
Bromochloroacetic acid	Standard	20.0	18.8	µg/L	94%		9807-105	1	80-120%	
Bromochloroacetic acid	Standard	40.0	40.5	µg/L	101%		9807-106	1	80-120%	
Bromodichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9806-491	1		
Bromodichloroacetic acid	Matrix Spike	40.0	35.4	µg/L	89%		9806-515	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9807-103	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9807-104	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	17.0	µg/L	85%		9807-105	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	17.2	µg/L	86%		9807-105	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	42.0	µg/L	105%		9807-106	1	80-120%	
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9806-491	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	35.3	µg/L	88%		9806-515	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9807-103	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9807-104	2	70-130%	
Chlorodibromoacetic acid	Standard	20.0	16.2	µg/L	81%		9807-105	2	80-120%	
Chlorodibromoacetic acid	Standard	20.0	16.9	µg/L	84%		9807-105	2	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chlorodibromoacetic acid	Standard	40.0	42.1 µg/L	105%		9807-106	2	80-120%
Dibromoacetic acid	Duplicate	3.5	3.4 µg/L		2.9%	9806-491	1	
Dibromoacetic acid	Matrix Spike	40.0	32.0 µg/L	80%		9806-515	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9807-103	1	
Dibromoacetic acid	Secondary Source Std	20.0	19.0 µg/L	95%		9807-104	1	70-130%
Dibromoacetic acid	Standard	20.0	18.3 µg/L	92%		9807-105	1	80-120%
Dibromoacetic acid	Standard	20.0	18.5 µg/L	93%		9807-105	1	80-120%
Dibromoacetic acid	Standard	40.0	41.2 µg/L	103%		9807-106	1	80-120%
Dichloroacetic acid	Duplicate	ND	ND µg/L		NA	9806-491	1	
Dichloroacetic acid	Matrix Spike	40.0	36.7 µg/L	92%		9806-515	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9807-103	1	
Dichloroacetic acid	Secondary Source Std	20.0	19.3 µg/L	97%		9807-104	1	70-130%
Dichloroacetic acid	Standard	20.0	19.1 µg/L	96%		9807-105	1	80-120%
Dichloroacetic acid	Standard	20.0	18.8 µg/L	94%		9807-105	1	80-120%
Dichloroacetic acid	Standard	40.0	39.1 µg/L	98%		9807-106	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-491	1	
Monobromoacetic acid	Matrix Spike	40.0	43.8 µg/L	110%		9806-515	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9807-103	1	
Monobromoacetic acid	Secondary Source Std	20.0	18.5 µg/L	93%		9807-104	1	70-130%
Monobromoacetic acid	Standard	20.0	19.4 µg/L	97%		9807-105	1	80-120%
Monobromoacetic acid	Standard	20.0	19.4 µg/L	97%		9807-105	1	80-120%
Monobromoacetic acid	Standard	40.0	39.4 µg/L	98%		9807-106	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9806-491	2	
Monochloroacetic acid	Matrix Spike	40.0	42.2 µg/L	106%		9806-515	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9807-103	2	
Monochloroacetic acid	Secondary Source Std	20.0	18.1 µg/L	91%		9807-104	2	70-130%
Monochloroacetic acid	Standard	20.0	20.3 µg/L	102%		9807-105	2	80-120%
Monochloroacetic acid	Standard	20.0	20.3 µg/L	102%		9807-105	2	80-120%
Monochloroacetic acid	Standard	40.0	40.1 µg/L	100%		9807-106	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-491	4	
Tribromoacetic acid	Matrix Spike	40.0	39.2 µg/L	98%		9806-515	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9807-103	4	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Tribromoacetic acid	Secondary Source Std		ND	µg/L			9807-104	4	70-130%
Tribromoacetic acid	Standard	20.0	17.5	µg/L	88%		9807-105	4	80-120%
Tribromoacetic acid	Standard	20.0	16.3	µg/L	82%		9807-105	4	80-120%
Tribromoacetic acid	Standard	40.0	43.6	µg/L	109%		9807-106	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9806-491	1	
Trichloroacetic acid	Matrix Spike	40.0	32.4	µg/L	81%		9806-515	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9807-103	1	
Trichloroacetic acid	Secondary Source Std	20.0	17.7	µg/L	89%		9807-104	1	70-130%
Trichloroacetic acid	Standard	20.0	17.5	µg/L	88%		9807-105	1	80-120%
Trichloroacetic acid	Standard	20.0	17.5	µg/L	88%		9807-105	1	80-120%
Trichloroacetic acid	Standard	40.0	41.2	µg/L	103%		9807-106	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-170-0

								Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	1.3	1.2	µg/L		8.0%	9806-648	1		
Bromochloroacetic acid	Matrix Spike	20.0	23.6	µg/L	118%		9806-664	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9807-188	1		
Bromochloroacetic acid	Secondary Source Std	20.0	18.2	µg/L	91%		9807-189	1	70-130%	
Bromochloroacetic acid	Standard	20.0	19.6	µg/L	98%		9807-190	1	80-120%	
Bromochloroacetic acid	Standard	20.0	19.7	µg/L	98%		9807-190	1	80-120%	
Bromochloroacetic acid	Standard	40.0	39.6	µg/L	99%		9807-191	1	80-120%	
Bromodichloroacetic acid	Duplicate	1.1	1.1	µg/L		0.0%	9806-648	1		
Bromodichloroacetic acid	Matrix Spike	20.0	17.3	µg/L	86%		9806-664	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9807-188	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9807-189	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	19.0	µg/L	95%		9807-190	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	18.5	µg/L	93%		9807-190	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	39.9	µg/L	100%		9807-191	1	80-120%	
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9806-648	2		
Chlorodibromoacetic acid	Matrix Spike	20.0	15.1	µg/L	76%		9806-664	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9807-188	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9807-189	2	70-130%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chlorodibromoacetic acid	Standard	20.0	19.1 µg/L	96%		9807-190	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	18.6 µg/L	93%		9807-190	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	39.8 µg/L	99%		9807-191	2	80-120%
Dibromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-648	1	
Dibromoacetic acid	Matrix Spike	20.0	22.8 µg/L	114%		9806-664	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9807-188	1	
Dibromoacetic acid	Secondary Source Std	20.0	17.8 µg/L	89%		9807-189	1	70-130%
Dibromoacetic acid	Standard	20.0	19.6 µg/L	98%		9807-190	1	80-120%
Dibromoacetic acid	Standard	20.0	19.7 µg/L	98%		9807-190	1	80-120%
Dibromoacetic acid	Standard	40.0	39.8 µg/L	99%		9807-191	1	80-120%
Dichloroacetic acid	Duplicate	1.3	1.1 µg/L		16.7%	9806-648	1	
Dichloroacetic acid	Matrix Spike	20.0	22.0 µg/L	110%		9806-664	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9807-188	1	
Dichloroacetic acid	Secondary Source Std	20.0	19.9 µg/L	99%		9807-189	1	70-130%
Dichloroacetic acid	Standard	20.0	19.8 µg/L	99%		9807-190	1	80-120%
Dichloroacetic acid	Standard	20.0	19.7 µg/L	98%		9807-190	1	80-120%
Dichloroacetic acid	Standard	40.0	38.4 µg/L	96%		9807-191	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-648	1	
Monobromoacetic acid	Matrix Spike	20.0	23.2 µg/L	116%		9806-664	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9807-188	1	
Monobromoacetic acid	Secondary Source Std	20.0	20.9 µg/L	104%		9807-189	1	70-130%
Monobromoacetic acid	Standard	20.0	20.2 µg/L	101%		9807-190	1	80-120%
Monobromoacetic acid	Standard	20.0	20.1 µg/L	101%		9807-190	1	80-120%
Monobromoacetic acid	Standard	40.0	39.0 µg/L	97%		9807-191	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9806-648	2	
Monochloroacetic acid	Matrix Spike	20.0	18.3 µg/L	92%		9806-664	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9807-188	2	
Monochloroacetic acid	Secondary Source Std	20.0	20.6 µg/L	103%		9807-189	2	70-130%
Monochloroacetic acid	Standard	20.0	20.7 µg/L	103%		9807-190	2	80-120%
Monochloroacetic acid	Standard	20.0	22.7 µg/L	114%		9807-190	2	80-120%
Monochloroacetic acid	Standard	40.0	38.1 µg/L	95%		9807-191	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-648	4	
Tribromoacetic acid	Matrix Spike	20.0	15.1 µg/L	76%		9806-664	4	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Tribromoacetic acid	Method Blank		ND*	µg/L			9807-188	4	
Tribromoacetic acid	Secondary Source Std		ND	µg/L			9807-189	4	70-130%
Tribromoacetic acid	Standard	20.0	19.8	µg/L	99%		9807-190	4	80-120%
Tribromoacetic acid	Standard	20.0	18.8	µg/L	94%		9807-190	4	80-120%
Tribromoacetic acid	Standard	40.0	38.7	µg/L	97%		9807-191	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9806-648	1	
Trichloroacetic acid	Matrix Spike	20.0	20.4	µg/L	102%		9806-664	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9807-188	1	
Trichloroacetic acid	Secondary Source Std	20.0	16.2	µg/L	81%		9807-189	1	70-130%
Trichloroacetic acid	Standard	20.0	19.6	µg/L	98%		9807-190	1	80-120%
Trichloroacetic acid	Standard	20.0	19.7	µg/L	98%		9807-190	1	80-120%
Trichloroacetic acid	Standard	40.0	39.5	µg/L	99%		9807-191	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-171-0

								Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	1.0	1.0	µg/L		0.0%	9806-688	1		
Bromochloroacetic acid	Matrix Spike	40.0	39.0	µg/L	97%		9806-808	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9807-209	1		
Bromochloroacetic acid	Secondary Source Std	20.0	19.7	µg/L	98%		9807-210	1	70-130%	
Bromochloroacetic acid	Standard	20.0	18.6	µg/L	93%		9807-211	1	80-120%	
Bromochloroacetic acid	Standard	20.0	18.7	µg/L	93%		9807-211	1	80-120%	
Bromochloroacetic acid	Standard	40.0	41.0	µg/L	102%		9807-212	1	80-120%	
Bromodichloroacetic acid	Duplicate	1.0	1.1	µg/L		9.5%	9806-688	1		
Bromodichloroacetic acid	Matrix Spike	40.0	41.9	µg/L	105%		9806-808	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9807-209	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9807-210	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	18.1	µg/L	91%		9807-211	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	18.6	µg/L	93%		9807-211	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	42.5	µg/L	106%		9807-212	1	80-120%	
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9806-688	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	42.5	µg/L	106%		9806-808	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9807-209	2		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9807-210	2	70-130%
Chlorodibromoacetic acid	Standard	20.0	18.1 µg/L	91%		9807-211	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	19.2 µg/L	96%		9807-211	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	43.0 µg/L	108%		9807-212	2	80-120%
Dibromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-688	1	
Dibromoacetic acid	Matrix Spike	40.0	38.4 µg/L	96%		9806-808	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9807-209	1	
Dibromoacetic acid	Secondary Source Std	20.0	20.8 µg/L	104%		9807-210	1	70-130%
Dibromoacetic acid	Standard	20.0	18.4 µg/L	92%		9807-211	1	80-120%
Dibromoacetic acid	Standard	20.0	18.6 µg/L	93%		9807-211	1	80-120%
Dibromoacetic acid	Standard	40.0	41.3 µg/L	103%		9807-212	1	80-120%
Dichloroacetic acid	Duplicate	ND	ND µg/L		NA	9806-688	1	
Dichloroacetic acid	Matrix Spike	40.0	38.8 µg/L	97%		9806-808	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9807-209	1	
Dichloroacetic acid	Secondary Source Std	20.0	20.2 µg/L	101%		9807-210	1	70-130%
Dichloroacetic acid	Standard	20.0	19.2 µg/L	96%		9807-211	1	80-120%
Dichloroacetic acid	Standard	20.0	19.0 µg/L	95%		9807-211	1	80-120%
Dichloroacetic acid	Standard	40.0	40.7 µg/L	102%		9807-212	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-688	1	
Monobromoacetic acid	Matrix Spike	40.0	41.3 µg/L	103%		9806-808	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9807-209	1	
Monobromoacetic acid	Secondary Source Std	20.0	18.7 µg/L	93%		9807-210	1	70-130%
Monobromoacetic acid	Standard	20.0	20.1 µg/L	101%		9807-211	1	80-120%
Monobromoacetic acid	Standard	20.0	20.1 µg/L	101%		9807-211	1	80-120%
Monobromoacetic acid	Standard	40.0	39.3 µg/L	98%		9807-212	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9806-688	2	
Monochloroacetic acid	Matrix Spike	40.0	43.7 µg/L	109%		9806-808	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9807-209	2	
Monochloroacetic acid	Secondary Source Std	20.0	20.2 µg/L	101%		9807-210	2	70-130%
Monochloroacetic acid	Standard	20.0	21.3 µg/L	106%		9807-211	2	80-120%
Monochloroacetic acid	Standard	20.0	21.0 µg/L	105%		9807-211	2	80-120%
Monochloroacetic acid	Standard	40.0	41.0 µg/L	102%		9807-212	2	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Tribromoacetic acid	Duplicate	ND	ND	µg/L		NA	9806-688	4	
Tribromoacetic acid	Matrix Spike	40.0	44.2	µg/L	111%		9806-808	4	
Tribromoacetic acid	Method Blank		ND*	µg/L			9807-209	4	
Tribromoacetic acid	Secondary Source Std		ND	µg/L			9807-210	4	70-130%
Tribromoacetic acid	Standard	20.0	18.2	µg/L	91%		9807-211	4	80-120%
Tribromoacetic acid	Standard	20.0	19.5	µg/L	97%		9807-211	4	80-120%
Tribromoacetic acid	Standard	40.0	42.4	µg/L	106%		9807-212	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9806-688	1	
Trichloroacetic acid	Matrix Spike	40.0	37.6	µg/L	94%		9806-808	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9807-209	1	
Trichloroacetic acid	Secondary Source Std	20.0	20.0	µg/L	100%		9807-210	1	70-130%
Trichloroacetic acid	Standard	20.0	18.1	µg/L	91%		9807-211	1	80-120%
Trichloroacetic acid	Standard	20.0	18.2	µg/L	91%		9807-211	1	80-120%
Trichloroacetic acid	Standard	40.0	41.3	µg/L	103%		9807-212	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-179-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	ND	ND	µg/L		NA	9806-574	1		
Bromochloroacetic acid	Matrix Spike	40.0	43.9	µg/L	110%		9807-142	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9807-424	1		
Bromochloroacetic acid	Secondary Source Std	20.0	19.0	µg/L	95%		9807-425	1	70-130%	
Bromochloroacetic acid	Standard	20.0	18.5	µg/L	93%		9807-426	1	80-120%	
Bromochloroacetic acid	Standard	20.0	18.2	µg/L	91%		9807-426	1	80-120%	
Bromochloroacetic acid	Standard	40.0	40.0	µg/L	100%		9807-427	1	80-120%	
Bromodichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9806-574	1		
Bromodichloroacetic acid	Matrix Spike	40.0	49.4	µg/L	123%		9807-142	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9807-424	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9807-425	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	18.0	µg/L	90%		9807-426	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	17.5	µg/L	88%		9807-426	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	42.0	µg/L	105%		9807-427	1	80-120%	
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9806-574	2		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chlorodibromoacetic acid	Matrix Spike	40.0	46.9 µg/L	117%		9807-142	2	
Chlorodibromoacetic acid	Method Blank		ND* µg/L			9807-424	2	
Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9807-425	2	70-130%
Chlorodibromoacetic acid	Standard	20.0	17.7 µg/L	89%		9807-426	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	17.3 µg/L	86%		9807-426	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	42.8 µg/L	107%		9807-427	2	80-120%
Dibromoacetic acid	Duplicate	4.5	4.3 µg/L		4.5%	9806-574	1	
Dibromoacetic acid	Matrix Spike	40.0	46.8 µg/L	117%		9807-142	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9807-424	1	
Dibromoacetic acid	Secondary Source Std	20.0	20.4 µg/L	102%		9807-425	1	70-130%
Dibromoacetic acid	Standard	20.0	18.5 µg/L	93%		9807-426	1	80-120%
Dibromoacetic acid	Standard	20.0	18.5 µg/L	93%		9807-426	1	80-120%
Dibromoacetic acid	Standard	40.0	40.9 µg/L	102%		9807-427	1	80-120%
Dichloroacetic acid	Duplicate	ND	ND µg/L		NA	9806-574	1	
Dichloroacetic acid	Matrix Spike	40.0	40.7 µg/L	102%		9807-142	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9807-424	1	
Dichloroacetic acid	Secondary Source Std	20.0	19.1 µg/L	96%		9807-425	1	70-130%
Dichloroacetic acid	Standard	20.0	19.0 µg/L	95%		9807-426	1	80-120%
Dichloroacetic acid	Standard	20.0	17.6 µg/L	88%		9807-426	1	80-120%
Dichloroacetic acid	Standard	40.0	38.8 µg/L	97%		9807-427	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-574	1	
Monobromoacetic acid	Matrix Spike	40.0	37.8 µg/L	94%		9807-142	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9807-424	1	
Monobromoacetic acid	Secondary Source Std	20.0	17.3 µg/L	86%		9807-425	1	70-130%
Monobromoacetic acid	Standard	20.0	19.4 µg/L	97%		9807-426	1	80-120%
Monobromoacetic acid	Standard	20.0	19.6 µg/L	98%		9807-426	1	80-120%
Monobromoacetic acid	Standard	40.0	39.6 µg/L	99%		9807-427	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9806-574	2	
Monochloroacetic acid	Matrix Spike	40.0	37.0 µg/L	93%		9807-142	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9807-424	2	
Monochloroacetic acid	Secondary Source Std	20.0	18.2 µg/L	91%		9807-425	2	70-130%
Monochloroacetic acid	Standard	20.0	18.9 µg/L	94%		9807-426	2	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Monochloroacetic acid	Standard	20.0	18.6	µg/L	93%		9807-426	2	80-120%
Monochloroacetic acid	Standard	40.0	38.4	µg/L	96%		9807-427	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND	µg/L		NA	9806-574	4	
Tribromoacetic acid	Matrix Spike	40.0	47.8	µg/L	119%		9807-142	4	
Tribromoacetic acid	Method Blank		ND*	µg/L			9807-424	4	
Tribromoacetic acid	Secondary Source Std		ND	µg/L			9807-425	4	70-130%
Tribromoacetic acid	Standard	20.0	18.0	µg/L	90%		9807-426	4	80-120%
Tribromoacetic acid	Standard	20.0	17.2	µg/L	86%		9807-426	4	80-120%
Tribromoacetic acid	Standard	40.0	43.1	µg/L	108%		9807-427	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9806-574	1	
Trichloroacetic acid	Matrix Spike	40.0	48.4	µg/L	121%		9807-142	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9807-424	1	
Trichloroacetic acid	Secondary Source Std	20.0	19.4	µg/L	97%		9807-425	1	70-130%
Trichloroacetic acid	Standard	20.0	17.9	µg/L	89%		9807-426	1	80-120%
Trichloroacetic acid	Standard	20.0	17.0	µg/L	85%		9807-426	1	80-120%
Trichloroacetic acid	Standard	40.0	39.6	µg/L	99%		9807-427	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-181-0

								Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	2.0	2.0	µg/L		0.0%	9806-685	1		
Bromochloroacetic acid	Matrix Spike	40.0	40.4	µg/L	101%		9807-402	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9807-447	1		
Bromochloroacetic acid	Secondary Source Std	20.0	17.7	µg/L	89%		9807-448	1	70-130%	
Bromochloroacetic acid	Standard	20.0	18.8	µg/L	94%		9807-449	1	80-120%	
Bromochloroacetic acid	Standard	20.0	18.9	µg/L	94%		9807-449	1	80-120%	
Bromochloroacetic acid	Standard	20.0	18.9	µg/L	94%		9807-449	1	80-120%	
Bromochloroacetic acid	Standard	40.0	40.8	µg/L	102%		9807-450	1	80-120%	
Bromochloroacetic acid	Standard	40.0	42.6	µg/L	106%		9807-450	1	80-120%	
Bromodichloroacetic acid	Duplicate	2.0	2.2	µg/L		9.5%	9806-685	1		
Bromodichloroacetic acid	Matrix Spike	40.0	44.0	µg/L	110%		9807-402	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9807-447	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9807-448	1	70-130%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Bromodichloroacetic acid	Standard	20.0	18.2 µg/L	91%		9807-449	1	80-120%
Bromodichloroacetic acid	Standard	20.0	19.1 µg/L	96%		9807-449	1	80-120%
Bromodichloroacetic acid	Standard	20.0	18.3 µg/L	92%		9807-449	1	80-120%
Bromodichloroacetic acid	Standard	40.0	43.2 µg/L	108%		9807-450	1	80-120%
Bromodichloroacetic acid	Standard	40.0	40.4 µg/L	101%		9807-450	1	80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-685	2	
Chlorodibromoacetic acid	Matrix Spike	40.0	42.6 µg/L	106%		9807-402	2	
Chlorodibromoacetic acid	Method Blank		ND* µg/L			9807-447	2	
Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9807-448	2	70-130%
Chlorodibromoacetic acid	Standard	20.0	18.4 µg/L	92%		9807-449	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	19.5 µg/L	97%		9807-449	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	18.8 µg/L	94%		9807-449	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	43.4 µg/L	109%		9807-450	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	40.9 µg/L	102%		9807-450	2	80-120%
Dibromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-685	1	
Dibromoacetic acid	Matrix Spike	40.0	40.5 µg/L	101%		9807-402	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9807-447	1	
Dibromoacetic acid	Secondary Source Std	20.0	18.5 µg/L	93%		9807-448	1	70-130%
Dibromoacetic acid	Standard	20.0	18.3 µg/L	92%		9807-449	1	80-120%
Dibromoacetic acid	Standard	20.0	18.4 µg/L	92%		9807-449	1	80-120%
Dibromoacetic acid	Standard	20.0	18.3 µg/L	92%		9807-449	1	80-120%
Dibromoacetic acid	Standard	40.0	41.0 µg/L	102%		9807-450	1	80-120%
Dibromoacetic acid	Standard	40.0	42.4 µg/L	106%		9807-450	1	80-120%
Dichloroacetic acid	Duplicate	3.8	4.0 µg/L		5.1%	9806-685	1	
Dichloroacetic acid	Matrix Spike	40.0	38.8 µg/L	97%		9807-402	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9807-447	1	
Dichloroacetic acid	Secondary Source Std	20.0	18.2 µg/L	91%		9807-448	1	70-130%
Dichloroacetic acid	Standard	20.0	18.9 µg/L	94%		9807-449	1	80-120%
Dichloroacetic acid	Standard	20.0	19.0 µg/L	95%		9807-449	1	80-120%
Dichloroacetic acid	Standard	20.0	19.3 µg/L	97%		9807-449	1	80-120%
Dichloroacetic acid	Standard	40.0	38.9 µg/L	97%		9807-450	1	80-120%
Dichloroacetic acid	Standard	40.0	42.0 µg/L	105%		9807-450	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-685	1	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Monobromoacetic acid	Matrix Spike	40.0	40.3 µg/L	101%		9807-402	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9807-447	1	
Monobromoacetic acid	Secondary Source Std	20.0	18.4 µg/L	92%		9807-448	1	70-130%
Monobromoacetic acid	Standard	20.0	19.4 µg/L	97%		9807-449	1	80-120%
Monobromoacetic acid	Standard	20.0	19.4 µg/L	97%		9807-449	1	80-120%
Monobromoacetic acid	Standard	20.0	19.6 µg/L	98%		9807-449	1	80-120%
Monobromoacetic acid	Standard	40.0	39.8 µg/L	99%		9807-450	1	80-120%
Monobromoacetic acid	Standard	40.0	41.6 µg/L	104%		9807-450	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9806-685	2	
Monochloroacetic acid	Matrix Spike	40.0	41.9 µg/L	105%		9807-402	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9807-447	2	
Monochloroacetic acid	Secondary Source Std	20.0	19.9 µg/L	99%		9807-448	2	70-130%
Monochloroacetic acid	Standard	20.0	19.3 µg/L	97%		9807-449	2	80-120%
Monochloroacetic acid	Standard	20.0	19.0 µg/L	95%		9807-449	2	80-120%
Monochloroacetic acid	Standard	20.0	19.4 µg/L	97%		9807-449	2	80-120%
Monochloroacetic acid	Standard	40.0	38.1 µg/L	95%		9807-450	2	80-120%
Monochloroacetic acid	Standard	40.0	40.9 µg/L	102%		9807-450	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9806-685	4	
Tribromoacetic acid	Matrix Spike	40.0	41.6 µg/L	104%		9807-402	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9807-447	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9807-448	4	70-130%
Tribromoacetic acid	Standard	20.0	19.1 µg/L	96%		9807-449	4	80-120%
Tribromoacetic acid	Standard	20.0	20.5 µg/L	102%		9807-449	4	80-120%
Tribromoacetic acid	Standard	20.0	20.2 µg/L	101%		9807-449	4	80-120%
Tribromoacetic acid	Standard	40.0	44.0 µg/L	110%		9807-450	4	80-120%
Tribromoacetic acid	Standard	40.0	42.7 µg/L	107%		9807-450	4	80-120%
Trichloroacetic acid	Duplicate	3.2	3.4 µg/L		6.1%	9806-685	1	
Trichloroacetic acid	Matrix Spike	40.0	41.5 µg/L	104%		9807-402	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9807-447	1	
Trichloroacetic acid	Secondary Source Std	20.0	18.1 µg/L	91%		9807-448	1	70-130%
Trichloroacetic acid	Standard	20.0	17.7 µg/L	89%		9807-449	1	80-120%
Trichloroacetic acid	Standard	20.0	17.9 µg/L	89%		9807-449	1	80-120%
Trichloroacetic acid	Standard	20.0	17.7 µg/L	89%		9807-449	1	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

Trichloroacetic acid	Standard	40.0	41.6 µg/L	104%	9807-450	1	80-120%
Trichloroacetic acid	Standard	40.0	42.7 µg/L	107%	9807-450	1	80-120%

End of quality control report

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
Phone: (513) 679-2200
Fax: (513) 679-2201

QC Results from Montgomery Watson Laboratories

Printed on 7/9/99 7:09:37 PM

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 122
Study Title: ICR RSSCT #2

QC Batch ID: 80178 **Report #:** 44484

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	1.08	108.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	1.09	109.0%		(80 - 120)
MBLK	Ammonia Nitrogen	ND	ND			
MS	Ammonia Nitrogen	1	0.86	86.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	1.12	112.0%		(80 - 120)

QC Batch ID: 80408 **Report #:** 44484

Analysis: BR **Method:** ML/EPA 300

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Bromide	0.02	0.02	100.0%		(50 - 150)
LCS2	Bromide	0.1	0.097	97.0%		(90 - 110)
MBLK	Bromide	ND	ND			(70 - 130)
MS	Bromide	0.1	0.095	95.0%		(80 - 120)
MSD	Bromide	0.1	0.098	98.0%		(80 - 120)

QC Batch ID: 80529 **Report #:** 44850

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	1.05	105.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	1	100.0%		(80 - 120)
MS	Ammonia Nitrogen	1	0.94	94.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	0.95	95.0%		(80 - 120)

QC Batch ID: 80588 **Report #:** 44484

Analysis: CA **Method:** EPA/ML 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	48.7	97.0%		(90 - 110)
LCS2	Calcium, Total, ICAP	50	51.4	103.0%		(90 - 110)
MBLK	Calcium, Total, ICAP	ND	ND			
MS	Calcium, Total, ICAP	50	52.1	104.0%		(80 - 120)

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

QC Results from Montgomery Watson Laboratories

Mr. Doug Robbins
City of Greensboro

Study#: 122
Study Title: ICR RSSCT #2

QC Batch ID: 80590 **Report #:** 44484

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	20.3	102.0%		(85 - 115)
LCS2	Magnesium, Total, ICAP	20	21.3	106.0%		(85 - 115)
MBLK	Magnesium, Total, ICAP	ND	ND			
MS	Magnesium, Total, ICAP	20	20.5	102.0%		(70 - 130)

QC Batch ID: 80695 **Report #:** 44848, 44849, 44850

Analysis: BR **Method:** ML/EPA 300

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Bromide	0.02	0.02	100.0%		(50 - 150)
LCS2	Bromide	0.1	0.099	99.0%		(90 - 110)
MS	Bromide	0.3	0.305	102.0%		(80 - 120)
MSD	Bromide	0.3	0.305	102.0%		(80 - 120)

QC Batch ID: 81464 **Report #:** 44848, 44849, 44850

Analysis: CA **Method:** EPA/ML 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	48	96.0%		(90 - 110)
LCS2	Calcium, Total, ICAP	50	48.3	97.0%		(90 - 110)
MS	Calcium, Total, ICAP	50	49.7	99.0%		(80 - 120)

QC Batch ID: 81465 **Report #:** 44848, 44849, 44850

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	19.7	98.0%		(85 - 115)
LCS2	Magnesium, Total, ICAP	20	20	100.0%		(85 - 115)
MS	Magnesium, Total, ICAP	20	20.7	104.0%		(70 - 130)

End of MW QC report

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

Summers & Hooper, Inc.
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Comments

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 122
Study Title: ICR RSSCT #2

Analysis comments

Analysis: Turbidity
Method: SM 2130 B

Reported turbidity data has been rounded following the requirements of SM 2130 B, reproduced in the table below (Standard Methods, 1995). Note that the reported digits are not necessarily significant.

Turbidity Range	Report to Nearest
0-1.0	0.05
1-10	0.1
10-40	1
40-100	5
100-400	10
400-1000	50
> 1000	100

End of comments

Summers & Hooper, Inc.

6 Knollcrest Drive
Cincinnati, OH 45237

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Laboratory Report

Client:

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study Title: ICR RSSCT #3

Study #: 147

Reviewed By: _____

Stuart M. Hooper

Date Reviewed: 7/13/99

Electronic copies of the results and quality control data are available upon request.

Summers & Hooper, Inc.
6 Knollcrest Drive
Cincinnati, OH 45237
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Laboratory Test Results

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: Greens.Settled **S&H ID:** 9810-89 **Date Sampled:** 10/5/98 12:50:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1	TOC-ICR TOC	2.01	mg/L	SM 5310 C	1	0.50	10/5/98		10/6/98	7-0-423
2	TOC-ICR TOC (Dupl)	2.03	mg/L	SM 5310 C	1	0.50	10/5/98		10/6/98	7-0-423
		2.02	**mg/L**	**1.0 % RPD**						

Sample ID: Green.Settled **S&H ID:** 9810-119 **Date Sampled:** 10/6/98 1:00:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
3	TOC-ICR TOC	2.01	mg/L	SM 5310 C	1	0.50	10/6/98		10/8/98	7-0-425
4	TOC-ICR TOC (Dupl)	2.02	mg/L	SM 5310 C	1	0.50	10/6/98		10/8/98	7-0-425
		2.01	**mg/L**	**0.5 % RPD**						

Sample ID: Green.Filtered **S&H ID:** 9810-120 **Date Sampled:** 10/6/98 1:00:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
5	TOC-ICR TOC	2.16	mg/L	SM 5310 C	1	0.50	10/6/98		10/8/98	7-0-425
6	TOC-ICR TOC (Dupl)	2.25	mg/L	SM 5310 C	1	0.50	10/6/98		10/8/98	7-0-425
		2.21	**mg/L**	**4.1 % RPD**						

Sample ID: Green.Raw **S&H ID:** 9810-121 **Date Sampled:** 10/6/98 1:00:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
7	TOC-ICR TOC	3.24	mg/L	SM 5310 C	1	0.50	10/6/98		10/8/98	7-0-425
8	TOC-ICR TOC (Dupl)	3.23	mg/L	SM 5310 C	1	0.50	10/6/98		10/8/98	7-0-425
		3.24	**mg/L**	**0.3 % RPD**						

Sample ID: Settled on Arrival **S&H ID:** 9810-131 **Date Sampled:** 10/8/98 11:30:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
9	TOC-ICR TOC	2.03	mg/L	SM 5310 C	1	0.50	10/8/98		10/8/98	7-0-425
10	TOC-ICR TOC (Dupl)	2.06	mg/L	SM 5310 C	1	0.50	10/8/98		10/8/98	7-0-425
		2.04	**mg/L**	**1.5 % RPD**						

Sample ID: Filtered on Arrival **S&H ID:** 9810-132 **Date Sampled:** 10/8/98 12:55:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
11	TOC-ICR TOC	1.98	mg/L	SM 5310 C	1	0.50	10/8/98		10/8/98	7-0-425
12	TOC-ICR TOC (Dupl)	1.99	mg/L	SM 5310 C	1	0.50	10/8/98		10/8/98	7-0-425
		1.98	**mg/L**	**0.5 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-1 **S&H ID:** 9810-134 **Date Sampled:** 10/8/98 10:33:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
13	Cl2Dose	Chlorine Dose	1.75	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/13/98		10/13/98	n/a
14	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/13/98		10/14/98	n/a
15	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	103.2	%	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
16	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.4	%	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
17	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
18	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
19	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/14/98	10/20/98	10/20/98	0-247-0
20	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
21	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
22	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
23	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/14/98	10/20/98	10/20/98	0-247-0
24	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/14/98	10/20/98	10/20/98	0-247-0
25	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
26	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/14/98	n/a
27	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/13/98	n/a
28	pH	pH	8.0	Unit	SM 4500-H+ B	1	n/a	10/8/98		10/8/98	n/a
29	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/13/98		10/14/98	n/a
30	TEMP	Temperature	21.8	ºC	SM 2550 B	1	n/a	10/8/98		10/8/98	n/a
31	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	10/13/98		10/14/98	n/a
32	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/8/98		10/9/98	7-0-426
33	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/8/98		10/9/98	7-0-426
			ND	**mg/L**							
34	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/14/98		10/21/98	12-0-230
35	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/14/98		10/21/98	12-0-230
			ND	**µg Cl-/L**							
36	THM-ICR	1,2,3-Trichloropropane (Surrogate)	99.6	%	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
37	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
38	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
39	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
40	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
41	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/8/98		10/9/98	8-0-320
42	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/8/98		10/9/98	8-0-320
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-5 **S&H ID:** 9810-138 **Date Sampled:** 10/11/98 1:30:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
43	Cl2Dose	Chlorine Dose	1.83	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
44	Cl2Res	Chlorine Residual	0.91	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
45	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	90.0	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
46	HAA-ICR	2-Bromopropionic acid (Surrogate)	104.8	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
47	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
48	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
49	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
50	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
51	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
52	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
53	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
54	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/20/98	10/21/98	0-247-0
55	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
56	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
57	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
58	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/11/98		10/11/98	n/a
59	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
60	TEMP	Temperature	21.5	ºC	SM 2550 B	1	n/a	10/11/98		10/11/98	n/a
61	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
62	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/11/98		10/11/98	7-0-428
63	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/11/98		10/11/98	7-0-428
			ND	**mg/L**							
64	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/21/98	12-0-230
65	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/21/98	12-0-230
			ND	**µg Cl-/L**							
66	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.0	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
67	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
68	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
69	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
70	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
71	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/11/98		10/12/98	8-0-324
72	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/11/98		10/12/98	8-0-324
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-6 **S&H ID:** 9810-139 **Date Sampled:** 10/11/98 6:35:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
73	Cl2Dose	Chlorine Dose	1.90	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
74	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
75	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	92.4	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
76	HAA-ICR	2-Bromopropionic acid (Surrogate)	103.2	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
77	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
78	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
79	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
80	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
81	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
82	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
83	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
84	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/20/98	10/21/98	0-247-0
85	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
86	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
87	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
88	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/11/98		10/11/98	n/a
89	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
90	TEMP	Temperature	22.0	ºC	SM 2550 B	1	n/a	10/11/98		10/11/98	n/a
91	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
92	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/11/98		10/12/98	7-0-429
93	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/11/98		10/12/98	7-0-429
			ND	**mg/L**							
94	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/21/98	12-0-230
95	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/21/98	12-0-230
			ND	**µg Cl-/L**							
96	THM-ICR	1,2,3-Trichloropropane (Surrogate)	98.0	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
97	THM-ICR	Bromodichloromethane	1.5	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
98	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
99	THM-ICR	Chloroform	1.4	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
100	THM-ICR	Dibromochloromethane	1.2	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
101	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/11/98		10/12/98	8-0-324
102	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/11/98		10/12/98	8-0-324
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-7 **S&H ID:** 9810-140 **Date Sampled:** 10/11/98 11:41:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
103	Cl2Dose	Chlorine Dose	1.99	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
104	Cl2Res	Chlorine Residual	0.96	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
105	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	94.8	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
106	HAA-ICR	2-Bromopropionic acid (Surrogate)	101.2	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
107	HAA-ICR	Bromochloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
108	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
109	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
110	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
111	HAA-ICR	Dichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
112	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
113	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
114	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/20/98	10/21/98	0-247-0
115	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
116	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
117	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
118	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/11/98		10/11/98	n/a
119	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
120	TEMP	Temperature	21.6	ºC	SM 2550 B	1	n/a	10/11/98		10/11/98	n/a
121	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
122	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/11/98		10/12/98	7-0-429
123	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/11/98		10/12/98	7-0-429
			ND	**mg/L**							
124	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/21/98	12-0-230
125	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/21/98	12-0-230
			ND	**µg Cl-/L**							
126	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.0	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
127	THM-ICR	Bromodichloromethane	2.3	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
128	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
129	THM-ICR	Chloroform	2.1	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
130	THM-ICR	Dibromochloromethane	1.7	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
131	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/11/98		10/12/98	8-0-324
132	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/11/98		10/12/98	8-0-324
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-8 **S&H ID:** 9810-141 **Date Sampled:** 10/12/98 4:50:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
133	Cl2Dose	Chlorine Dose	2.08	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
134	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
135	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.6	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
136	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.0	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
137	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
138	HAA-ICR	Bromodichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
139	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
140	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
141	HAA-ICR	Dichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
142	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
143	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
144	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/20/98	10/21/98	0-247-0
145	HAA-ICR	Trichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
146	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
147	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
148	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/12/98		10/12/98	n/a
149	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
150	TEMP	Temperature	21.4	ºC	SM 2550 B	1	n/a	10/12/98		10/12/98	n/a
151	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
152	TOC-ICR	TOC	0.59	mg/L	SM 5310 C	1	0.50	10/12/98		10/12/98	7-0-429
153	TOC-ICR	TOC (Dupl)	0.60	mg/L	SM 5310 C	1	0.50	10/12/98		10/12/98	7-0-429
			0.59	**mg/L**	**1.7 % RPD**						
154	TOX-ICR	TOX	26	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
155	TOX-ICR	TOX (Dupl)	27	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
			27	**µg Cl-/L**	**3.7 % RPD**						
156	THM-ICR	1,2,3-Trichloropropane (Surrogate)	90.4	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
157	THM-ICR	Bromodichloromethane	3.0	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
158	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
159	THM-ICR	Chloroform	2.7	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
160	THM-ICR	Dibromochloromethane	2.0	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
161	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/12/98		10/12/98	8-0-324
162	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/12/98		10/12/98	8-0-324
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-10 **S&H ID:** 9810-143 **Date Sampled:** 10/12/98 3:07:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
163	Cl2Dose	Chlorine Dose	2.20	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
164	Cl2Res	Chlorine Residual	1.04	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
165	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.0	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
166	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.6	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
167	HAA-ICR	Bromochloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
168	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
169	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
170	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
171	HAA-ICR	Dichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
172	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
173	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
174	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/20/98	10/21/98	0-247-0
175	HAA-ICR	Trichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
176	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
177	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
178	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/12/98		10/12/98	n/a
179	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
180	TEMP	Temperature	21.5	ºC	SM 2550 B	1	n/a	10/12/98		10/12/98	n/a
181	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
182	TOC-ICR	TOC	0.76	mg/L	SM 5310 C	1	0.50	10/12/98		10/12/98	7-0-429
183	TOC-ICR	TOC (Dupl)	0.79	mg/L	SM 5310 C	1	0.50	10/12/98		10/12/98	7-0-429
			0.78	**mg/L**	**3.8 % RPD**						
184	TOX-ICR	TOX	36	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
185	TOX-ICR	TOX (Dupl)	36	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
			36	**µg Cl-/L**	**0.0 % RPD**						
186	THM-ICR	1,2,3-Trichloropropane (Surrogate)	90.4	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
187	THM-ICR	Bromodichloromethane	4.1	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
188	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
189	THM-ICR	Chloroform	4.0	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
190	THM-ICR	Dibromochloromethane	2.5	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
191	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/12/98		10/13/98	8-0-325
192	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/12/98		10/13/98	8-0-325
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-12 **S&H ID:** 9810-145 **Date Sampled:** 10/13/98 1:06:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
193	Cl2Dose	Chlorine Dose	2.28	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
194	Cl2Res	Chlorine Residual	1.04	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
195	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	96.8	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
196	HAA-ICR	2-Bromopropionic acid (Surrogate)	101.6	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
197	HAA-ICR	Bromochloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
198	HAA-ICR	Bromodichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
199	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
200	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
201	HAA-ICR	Dichloroacetic acid	2.9	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
202	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
203	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
204	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/20/98	10/21/98	0-247-0
205	HAA-ICR	Trichloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
206	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
207	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
208	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/13/98	n/a
209	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
210	TEMP	Temperature	20.7	ºC	SM 2550 B	1	n/a	10/13/98		10/13/98	n/a
211	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
212	TOC-ICR	TOC	0.87	mg/L	SM 5310 C	1	0.50	10/13/98		10/13/98	7-0-430
213	TOC-ICR	TOC (Dupl)	0.88	mg/L	SM 5310 C	1	0.50	10/13/98		10/13/98	7-0-430
			0.88	**mg/L**	**1.1 % RPD**						
214	TOX-ICR	TOX	43	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
215	TOX-ICR	TOX (Dupl)	43	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
			43	**µg Cl-/L**	**0.0 % RPD**						
216	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.4	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
217	THM-ICR	Bromodichloromethane	5.2	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
218	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
219	THM-ICR	Chloroform	5.8	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
220	THM-ICR	Dibromochloromethane	2.7	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
221	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	10/13/98		10/13/98	8-0-325
222	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	10/13/98		10/13/98	8-0-325
			0.009	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-14 **S&H ID:** 9810-147 **Date Sampled:** 10/13/98 4:24:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
223	Cl2Dose	Chlorine Dose	2.40	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
224	Cl2Res	Chlorine Residual	1.07	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
225	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.8	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
226	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.0	%	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
227	HAA-ICR	Bromochloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
228	HAA-ICR	Bromodichloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
229	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
230	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
231	HAA-ICR	Dichloroacetic acid	3.7	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
232	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
233	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/20/98	10/21/98	0-247-0
234	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/20/98	10/21/98	0-247-0
235	HAA-ICR	Trichloroacetic acid	3.4	µg/L	EPA 552.2	1	1.0	10/16/98	10/20/98	10/21/98	0-247-0
236	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
237	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
238	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/13/98	n/a
239	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
240	TEMP	Temperature	21.5	ºC	SM 2550 B	1	n/a	10/13/98		10/13/98	n/a
241	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
242	TOC-ICR	TOC	1.04	mg/L	SM 5310 C	1	0.50	10/13/98		10/14/98	7-0-431
243	TOC-ICR	TOC (Dupl)	1.03	mg/L	SM 5310 C	1	0.50	10/13/98		10/14/98	7-0-431
			1.04	**mg/L**	**1.0 % RPD**						
244	TOX-ICR	TOX	56	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
245	TOX-ICR	TOX (Dupl)	57	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
			57	**µg Cl-/L**	**1.8 % RPD**						
246	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.4	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
247	THM-ICR	Bromodichloromethane	6.2	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
248	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
249	THM-ICR	Chloroform	7.8	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
250	THM-ICR	Dibromochloromethane	2.9	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
251	UV-ICR	UV	0.011	1/cm	SM 5910 B	1	0.009	10/13/98		10/14/98	8-0-326
252	UV-ICR	UV (Dupl)	0.011	1/cm	SM 5910 B	1	0.009	10/13/98		10/14/98	8-0-326
			0.011	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-17 **S&H ID:** 9810-150 **Date Sampled:** 10/14/98 1:20:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
253	Cl2Dose	Chlorine Dose	2.41	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/19/98		10/19/98	n/a
254	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/19/98		10/20/98	n/a
255	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.8	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
256	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.8	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
257	HAA-ICR	Bromochloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
258	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
259	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
260	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
261	HAA-ICR	Dichloroacetic acid	4.1	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
262	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
263	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
264	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/23/98	0-248-0
265	HAA-ICR	Trichloroacetic acid	2.7	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
266	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/20/98	n/a
267	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
268	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/14/98		10/14/98	n/a
269	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/19/98		10/20/98	n/a
270	TEMP	Temperature	20.4	ºC	SM 2550 B	1	n/a	10/14/98		10/14/98	n/a
271	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	10/19/98		10/20/98	n/a
272	TOC-ICR	TOC	1.15	mg/L	SM 5310 C	1	0.50	10/14/98		10/14/98	7-0-431
273	TOC-ICR	TOC (Dupl)	1.15	mg/L	SM 5310 C	1	0.50	10/14/98		10/14/98	7-0-431
			1.15	**mg/L**	**0.0 % RPD**						
274	TOX-ICR	TOX	72	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
275	TOX-ICR	TOX (Dupl)	70	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
			71	**µg Cl-/L**	**2.8 % RPD**						
276	THM-ICR	1,2,3-Trichloropropane (Surrogate)	89.2	%	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
277	THM-ICR	Bromodichloromethane	6.9	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
278	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
279	THM-ICR	Chloroform	9.9	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
280	THM-ICR	Dibromochloromethane	2.8	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
281	UV-ICR	UV	0.013	1/cm	SM 5910 B	1	0.009	10/14/98		10/14/98	8-0-326
282	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	10/14/98		10/14/98	8-0-326
			0.013	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-20 **S&H ID:** 9810-153 **Date Sampled:** 10/15/98 2:55:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
283	Cl2Dose	Chlorine Dose	2.50	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/19/98		10/19/98	n/a
284	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/19/98		10/20/98	n/a
285	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.4	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
286	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.4	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
287	HAA-ICR	Bromochloroacetic acid	2.4	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
288	HAA-ICR	Bromodichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
289	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
290	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
291	HAA-ICR	Dichloroacetic acid	5.0	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
292	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
293	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
294	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/23/98	0-248-0
295	HAA-ICR	Trichloroacetic acid	3.7	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
296	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/20/98	n/a
297	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
298	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
299	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/19/98		10/20/98	n/a
300	TEMP	Temperature	21.1	ºC	SM 2550 B	1	n/a	10/15/98		10/15/98	n/a
301	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	10/19/98		10/20/98	n/a
302	TOC-ICR	TOC	1.28	mg/L	SM 5310 C	1	0.50	10/15/98		10/15/98	7-0-432
303	TOC-ICR	TOC (Dupl)	1.30	mg/L	SM 5310 C	1	0.50	10/15/98		10/15/98	7-0-432
			1.29	**mg/L**	**1.6 % RPD**						
304	TOX-ICR	TOX	82	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/22/98	12-0-231
305	TOX-ICR	TOX (Dupl)	83	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/22/98	12-0-231
			83	**µg Cl-/L**	**1.2 % RPD**						
306	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.0	%	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
307	THM-ICR	Bromodichloromethane	7.6	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
308	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
309	THM-ICR	Chloroform	12.0	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
310	THM-ICR	Dibromochloromethane	2.9	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
311	UV-ICR	UV	0.015	1/cm	SM 5910 B	1	0.009	10/15/98		10/15/98	8-0-327
312	UV-ICR	UV (Dupl)	0.015	1/cm	SM 5910 B	1	0.009	10/15/98		10/15/98	8-0-327
			0.015	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-23 **S&H ID:** 9810-156 **Date Sampled:** 10/17/98 6:45:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
313	Cl2Dose	Chlorine Dose	2.56	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/21/98		10/21/98	n/a
314	Cl2Res	Chlorine Residual	1.08	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/21/98		10/22/98	n/a
315	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.6	%	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
316	HAA-ICR	2-Bromopropionic acid (Surrogate)	101.2	%	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
317	HAA-ICR	Bromochloroacetic acid	2.6	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
318	HAA-ICR	Bromodichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
319	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/23/98	10/24/98	0-248-0
320	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
321	HAA-ICR	Dichloroacetic acid	5.5	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
322	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
323	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/23/98	10/24/98	0-248-0
324	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/22/98	10/23/98	10/24/98	0-248-0
325	HAA-ICR	Trichloroacetic acid	3.9	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
326	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/22/98	n/a
327	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/21/98	n/a
328	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/17/98		10/17/98	n/a
329	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/21/98		10/22/98	n/a
330	TEMP	Temperature	21.9	ºC	SM 2550 B	1	n/a	10/17/98		10/17/98	n/a
331	TIME	Cl2 Incubation Time	23.7	hrs	n/a	1	n/a	10/21/98		10/22/98	n/a
332	TOC-ICR	TOC	1.40	mg/L	SM 5310 C	1	0.50	10/17/98		10/18/98	7-0-435
333	TOC-ICR	TOC (Dupl)	1.44	mg/L	SM 5310 C	1	0.50	10/17/98		10/18/98	7-0-435
			1.42	**mg/L**	**2.8 % RPD**						
334	TOX-ICR	TOX	94	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/26/98	12-0-233
335	TOX-ICR	TOX (Dupl)	88	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/26/98	12-0-233
			91	**µg Cl-/L**	**6.6 % RPD**						
336	THM-ICR	1,2,3-Trichloropropane (Surrogate)	90.0	%	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
337	THM-ICR	Bromodichloromethane	9.8	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
338	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
339	THM-ICR	Chloroform	15.3	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
340	THM-ICR	Dibromochloromethane	3.8	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
341	UV-ICR	UV	0.018	1/cm	SM 5910 B	1	0.009	10/17/98		10/18/98	8-0-330
342	UV-ICR	UV (Dupl)	0.018	1/cm	SM 5910 B	1	0.009	10/17/98		10/18/98	8-0-330
			0.018	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-25 **S&H ID:** 9810-158 **Date Sampled:** 10/20/98 9:39:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
343	Cl2Dose	Chlorine Dose	2.61	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/21/98		10/21/98	n/a
344	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/21/98		10/22/98	n/a
345	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.4	%	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
346	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.4	%	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
347	HAA-ICR	Bromochloroacetic acid	2.4	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
348	HAA-ICR	Bromodichloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
349	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/23/98	10/24/98	0-248-0
350	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
351	HAA-ICR	Dichloroacetic acid	6.4	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
352	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
353	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/23/98	10/24/98	0-248-0
354	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/22/98	10/23/98	10/24/98	0-248-0
355	HAA-ICR	Trichloroacetic acid	6.0	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
356	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/22/98	n/a
357	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/21/98	n/a
358	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	10/20/98		10/20/98	n/a
359	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/21/98		10/22/98	n/a
360	TEMP	Temperature	20.2	ºC	SM 2550 B	1	n/a	10/20/98		10/20/98	n/a
361	TIME	Cl2 Incubation Time	23.7	hrs	n/a	1	n/a	10/21/98		10/22/98	n/a
362	TOC-ICR	TOC	1.51	mg/L	SM 5310 C	1	0.50	10/20/98		10/20/98	7-0-437
363	TOC-ICR	TOC (Dupl)	1.51	mg/L	SM 5310 C	1	0.50	10/20/98		10/20/98	7-0-437
			1.51	**mg/L**	**0.0 % RPD**						
364	TOX-ICR	TOX	100	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/26/98	12-0-233
365	TOX-ICR	TOX (Dupl)	101	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/26/98	12-0-233
			101	**µg Cl-/L**	**1.0 % RPD**						
366	THM-ICR	1,2,3-Trichloropropane (Surrogate)	98.4	%	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
367	THM-ICR	Bromodichloromethane	9.3	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
368	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
369	THM-ICR	Chloroform	18.3	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
370	THM-ICR	Dibromochloromethane	2.9	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
371	UV-ICR	UV	0.020	1/cm	SM 5910 B	1	0.009	10/20/98		10/21/98	8-0-334
372	UV-ICR	UV (Dupl)	0.020	1/cm	SM 5910 B	1	0.009	10/20/98		10/21/98	8-0-334
			0.020	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-26 **S&H ID:** 9810-159 **Date Sampled:** 10/23/98 5:55:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
373	Cl2Dose	Chlorine Dose	2.68	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/26/98		10/26/98	n/a
374	Cl2Res	Chlorine Residual	0.92	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/26/98		10/27/98	n/a
375	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	85.6	%	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
376	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
377	HAA-ICR	Bromochloroacetic acid	2.6	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
378	HAA-ICR	Bromodichloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
379	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/27/98	10/28/98	10/29/98	0-255-0
380	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
381	HAA-ICR	Dichloroacetic acid	7.1	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
382	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
383	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/27/98	10/28/98	10/29/98	0-255-0
384	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/27/98	10/28/98	10/29/98	0-255-0
385	HAA-ICR	Trichloroacetic acid	6.4	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
386	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/27/98	n/a
387	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/26/98	n/a
388	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/23/98		10/23/98	n/a
389	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/26/98		10/27/98	n/a
390	TEMP	Temperature	18.8	ºC	SM 2550 B	1	n/a	10/23/98		10/23/98	n/a
391	TIME	Cl2 Incubation Time	24.3	hrs	n/a	1	n/a	10/26/98		10/27/98	n/a
392	TOC-ICR	TOC	1.67	mg/L	SM 5310 C	1	0.50	10/23/98		10/23/98	7-0-440
393	TOC-ICR	TOC (Dupl)	1.68	mg/L	SM 5310 C	1	0.50	10/23/98		10/23/98	7-0-440
			1.67	**mg/L**	**0.6 % RPD**						
394	TOX-ICR	TOX	114	µg Cl-/L	SM 5320 B	1	25	10/27/98		10/28/98	12-0-235
395	TOX-ICR	TOX (Dupl)	112	µg Cl-/L	SM 5320 B	1	25	10/27/98		10/28/98	12-0-235
			113	**µg Cl-/L**	**1.8 % RPD**						
396	THM-ICR	1,2,3-Trichloropropane (Surrogate)	98.4	%	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
397	THM-ICR	Bromodichloromethane	10.2	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
398	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
399	THM-ICR	Chloroform	23.6	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
400	THM-ICR	Dibromochloromethane	2.8	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
401	UV-ICR	UV	0.022	1/cm	SM 5910 B	1	0.009	10/23/98		10/23/98	8-0-336
402	UV-ICR	UV (Dupl)	0.022	1/cm	SM 5910 B	1	0.009	10/23/98		10/23/98	8-0-336
			0.022	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-8d **S&H ID:** 9810-165 **Date Sampled:** 10/12/98 4:50:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
403	Cl2Dose	Chlorine Dose	2.08	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
404	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
405	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.0	%	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
406	HAA-ICR	2-Bromopropionic acid (Surrogate)	104.0	%	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
407	HAA-ICR	Bromochloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
408	HAA-ICR	Bromodichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
409	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/23/98	10/23/98	0-248-0
410	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
411	HAA-ICR	Dichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
412	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
413	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/23/98	10/23/98	0-248-0
414	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/23/98	10/23/98	0-248-0
415	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
416	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
417	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
418	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/12/98		10/12/98	n/a
419	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
420	TEMP	Temperature	21.3	ºC	SM 2550 B	1	n/a	10/12/98		10/12/98	n/a
421	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
422	TOC-ICR	TOC	0.61	mg/L	SM 5310 C	1	0.50	10/12/98		10/12/98	7-0-429
423	TOC-ICR	TOC (Dupl)	0.60	mg/L	SM 5310 C	1	0.50	10/12/98		10/12/98	7-0-429
			0.60	**mg/L**	**1.7 % RPD**						
424	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
425	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
			ND	**µg Cl-/L**							
426	THM-ICR	1,2,3-Trichloropropane (Surrogate)	93.6	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
427	THM-ICR	Bromodichloromethane	3.0	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
428	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
429	THM-ICR	Chloroform	2.7	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
430	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
431	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/12/98		10/12/98	8-0-324
432	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/12/98		10/12/98	8-0-324
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-12d **S&H ID:** 9810-166 **Date Sampled:** 10/13/98 1:06:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
433	Cl2Dose	Chlorine Dose	2.28	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/15/98		10/15/98	n/a
434	Cl2Res	Chlorine Residual	1.05	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/15/98		10/16/98	n/a
435	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	103.2	%	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
436	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
437	HAA-ICR	Bromochloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
438	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
439	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/23/98	10/23/98	0-248-0
440	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
441	HAA-ICR	Dichloroacetic acid	2.9	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
442	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
443	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/16/98	10/23/98	10/23/98	0-248-0
444	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/16/98	10/23/98	10/23/98	0-248-0
445	HAA-ICR	Trichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	10/16/98	10/23/98	10/23/98	0-248-0
446	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/16/98	n/a
447	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
448	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/13/98	n/a
449	TEMP	Cl2 Temperature	20.1	ºC	SM 2550 B	1	n/a	10/15/98		10/16/98	n/a
450	TEMP	Temperature	20.6	ºC	SM 2550 B	1	n/a	10/13/98		10/13/98	n/a
451	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/15/98		10/16/98	n/a
452	TOC-ICR	TOC	0.89	mg/L	SM 5310 C	1	0.50	10/13/98		10/13/98	7-0-430
453	TOC-ICR	TOC (Dupl)	0.86	mg/L	SM 5310 C	1	0.50	10/13/98		10/13/98	7-0-430
			0.88	**mg/L**	**3.4 % RPD**						
454	TOX-ICR	TOX	42	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
455	TOX-ICR	TOX (Dupl)	45	µg Cl-/L	SM 5320 B	1	25	10/16/98		10/22/98	12-0-231
			44	**µg Cl-/L**	**6.8 % RPD**						
456	THM-ICR	1,2,3-Trichloropropane (Surrogate)	88.0	%	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
457	THM-ICR	Bromodichloromethane	5.3	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
458	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
459	THM-ICR	Chloroform	5.8	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
460	THM-ICR	Dibromochloromethane	2.7	µg/L	EPA 551.1	1	1.0	10/16/98	10/21/98	10/21/98	0-246-0
461	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	10/13/98		10/13/98	8-0-325
462	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	10/13/98		10/13/98	8-0-325
			0.009	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.10.Eff-20d **S&H ID:** 9810-168 **Date Sampled:** 10/15/98 2:55:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
463	Cl2Dose	Chlorine Dose	2.50	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/19/98		10/19/98	n/a
464	Cl2Res	Chlorine Residual	1.02	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/19/98		10/20/98	n/a
465	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.4	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
466	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.0	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
467	HAA-ICR	Bromochloroacetic acid	2.4	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
468	HAA-ICR	Bromodichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
469	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
470	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
471	HAA-ICR	Dichloroacetic acid	5.0	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
472	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
473	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
474	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/23/98	0-248-0
475	HAA-ICR	Trichloroacetic acid	3.9	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
476	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/20/98	n/a
477	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
478	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
479	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/19/98		10/20/98	n/a
480	TEMP	Temperature	21.2	ºC	SM 2550 B	1	n/a	10/15/98		10/15/98	n/a
481	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/19/98		10/20/98	n/a
482	TOC-ICR	TOC	1.29	mg/L	SM 5310 C	1	0.50	10/15/98		10/15/98	7-0-432
483	TOC-ICR	TOC (Dupl)	1.29	mg/L	SM 5310 C	1	0.50	10/15/98		10/15/98	7-0-432
			1.29	**mg/L**	**0.0 % RPD**						
484	TOX-ICR	TOX	77	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
485	TOX-ICR	TOX (Dupl)	79	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
			78	**µg Cl-/L**	**2.6 % RPD**						
486	THM-ICR	1,2,3-Trichloropropane (Surrogate)	93.2	%	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
487	THM-ICR	Bromodichloromethane	7.8	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
488	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
489	THM-ICR	Chloroform	12.3	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
490	THM-ICR	Dibromochloromethane	2.8	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/21/98	0-246-0
491	UV-ICR	UV	0.015	1/cm	SM 5910 B	1	0.009	10/15/98		10/15/98	8-0-327
492	UV-ICR	UV (Dupl)	0.015	1/cm	SM 5910 B	1	0.009	10/15/98		10/15/98	8-0-327
			0.015	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.20.Eff-1 **S&H ID:** 9810-174 **Date Sampled:** 10/9/98 7:51:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
493	Cl2Dose	Chlorine Dose	1.66	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/13/98		10/13/98	n/a
494	Cl2Res	Chlorine Residual	0.97	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/13/98		10/14/98	n/a
495	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.6	%	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
496	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
497	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
498	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
499	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/14/98	10/20/98	10/20/98	0-247-0
500	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
501	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
502	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
503	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/14/98	10/20/98	10/20/98	0-247-0
504	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/14/98	10/20/98	10/20/98	0-247-0
505	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
506	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/14/98	n/a
507	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/13/98	n/a
508	pH	pH	8.0	Unit	SM 4500-H+ B	1	n/a	10/9/98		10/9/98	n/a
509	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/13/98		10/14/98	n/a
510	TEMP	Temperature	20.5	ºC	SM 2550 B	1	n/a	10/9/98		10/9/98	n/a
511	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	10/13/98		10/14/98	n/a
512	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/9/98		10/9/98	7-0-426
513	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/9/98		10/9/98	7-0-426
			ND	**mg/L**							
514	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/14/98		10/21/98	12-0-230
515	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/14/98		10/21/98	12-0-230
			ND	**µg Cl-/L**							
516	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.0	%	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
517	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
518	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
519	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
520	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/19/98	10/20/98	0-243-0
521	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/9/98		10/9/98	8-0-320
522	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/9/98		10/9/98	8-0-320
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.20.Eff-7 **S&H ID:** 9810-180 **Date Sampled:** 10/15/98 8:03:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
523	Cl2Dose	Chlorine Dose	1.85	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/19/98		10/19/98	n/a
524	Cl2Res	Chlorine Residual	1.35	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/19/98		10/20/98	n/a
525	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.0	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
526	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.8	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
527	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
528	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
529	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
530	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
531	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
532	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
533	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
534	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/23/98	0-248-0
535	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
536	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/20/98	n/a
537	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
538	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
539	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/19/98		10/20/98	n/a
540	TEMP	Temperature	20.4	ºC	SM 2550 B	1	n/a	10/15/98		10/15/98	n/a
541	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/19/98		10/20/98	n/a
542	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/15/98		10/15/98	7-0-432
543	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/15/98		10/15/98	7-0-432
			ND	**mg/L**							
544	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
545	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
			ND	**µg Cl-/L**							
546	THM-ICR	1,2,3-Trichloropropane (Surrogate)	97.2	%	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
547	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
548	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
549	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
550	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
551	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/15/98		10/15/98	8-0-327
552	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/15/98		10/15/98	8-0-327
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.20.Eff-9 **S&H ID:** 9810-182 **Date Sampled:** 10/15/98 6:37:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
553	Cl2Dose	Chlorine Dose	1.91	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/19/98		10/19/98	n/a
554	Cl2Res	Chlorine Residual	1.35	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/19/98		10/20/98	n/a
555	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	103.2	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
556	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard) (Lab Dupl)	107.6	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
			105.4	**%**	**4.2 % RPD**						
557	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.6	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
558	HAA-ICR	2-Bromopropionic acid (Surrogate) (Lab Dupl)	97.6	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
			98.6	**%**	**2.0 % RPD**						
559	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
560	HAA-ICR	Bromochloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
			ND	**µg/L**							
561	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
562	HAA-ICR	Bromodichloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
			ND	**µg/L**							
563	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
564	HAA-ICR	Chlorodibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/24/98	0-248-0
			ND	**µg/L**							
565	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
566	HAA-ICR	Dibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
			ND	**µg/L**							
567	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
568	HAA-ICR	Dichloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
			ND	**µg/L**							
569	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
570	HAA-ICR	Monobromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
			ND	**µg/L**							
571	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/23/98	0-248-0
572	HAA-ICR	Monochloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/24/98	0-248-0
			ND	**µg/L**							
573	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/23/98	0-248-0
574	HAA-ICR	Tribromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/24/98	0-248-0
			ND	**µg/L**							
575	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/23/98	0-248-0
576	HAA-ICR	Trichloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

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			ND	**µg/L**							
577	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/20/98	n/a
578	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
579	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
580	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/19/98		10/20/98	n/a
581	TEMP	Temperature	21.6	ºC	SM 2550 B	1	n/a	10/15/98		10/15/98	n/a
582	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/19/98		10/20/98	n/a
583	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/15/98		10/16/98	7-0-433
584	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/15/98		10/16/98	7-0-433
			ND	**mg/L**							
585	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
586	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
			ND	**µg Cl-/L**							
587	THM-ICR	1,2,3-Trichloropropane (Surrogate)	97.6	%	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
588	THM-ICR	Bromodichloromethane	1.5	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
589	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
590	THM-ICR	Chloroform	1.3	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
591	THM-ICR	Dibromochloromethane	1.4	µg/L	EPA 551.1	1	1.0	10/20/98	10/21/98	10/22/98	0-246-0
592	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/15/98		10/16/98	8-0-328
593	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/15/98		10/16/98	8-0-328
			ND	**1/cm**							

Sample ID: 147.20.Eff-12 **S&H ID:** 9810-185 **Date Sampled:** 10/16/98 10:26:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
594	Cl2Dose	Chlorine Dose	1.98	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/19/98		10/19/98	n/a
595	Cl2Res	Chlorine Residual	1.34	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/19/98		10/20/98	n/a
596	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.6	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
597	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
598	HAA-ICR	Bromochloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
599	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
600	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/24/98	0-248-0
601	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
602	HAA-ICR	Dichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
603	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
604	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/24/98	0-248-0
605	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/24/98	0-248-0
606	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
607	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/20/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
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608	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
609	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/16/98		10/16/98	n/a
610	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/19/98		10/20/98	n/a
611	TEMP	Temperature	20.9	ºC	SM 2550 B	1	n/a	10/16/98		10/16/98	n/a
612	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/19/98		10/20/98	n/a
613	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/16/98		10/16/98	7-0-433
614	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/16/98		10/16/98	7-0-433
			ND	**mg/L**							
615	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
616	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
			ND	**µg Cl-/L**							
617	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.8	%	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
618	THM-ICR	Bromodichloromethane	2.2	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
619	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
620	THM-ICR	Chloroform	1.9	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
621	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
622	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/16/98		10/16/98	8-0-328
623	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/16/98		10/16/98	8-0-328
			ND	**1/cm**							

Sample ID: 147.20.Eff-13 **S&H ID:** 9810-186 **Date Sampled:** 10/17/98 2:11:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
624	Cl2Dose	Chlorine Dose	2.08	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/19/98		10/19/98	n/a
625	Cl2Res	Chlorine Residual	1.36	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/19/98		10/20/98	n/a
626	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	99.6	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
627	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
628	HAA-ICR	Bromochloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
629	HAA-ICR	Bromodichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
630	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/24/98	0-248-0
631	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
632	HAA-ICR	Dichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
633	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
634	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/24/98	0-248-0
635	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/24/98	0-248-0
636	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
637	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/20/98	n/a
638	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
639	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/17/98		10/17/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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Study Title: ICR RSSCT #3

640	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/19/98		10/20/98	n/a
641	TEMP	Temperature	21.2	ºC	SM 2550 B	1	n/a	10/17/98		10/17/98	n/a
642	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/19/98		10/20/98	n/a
643	TOC-ICR	TOC	0.62	mg/L	SM 5310 C	1	0.50	10/17/98		10/17/98	7-0-434
644	TOC-ICR	TOC (Dupl)	0.61	mg/L	SM 5310 C	1	0.50	10/17/98		10/17/98	7-0-434
			0.61	**mg/L**	**1.6 % RPD**						
645	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
646	TOX-ICR	TOX (Dupl)	26	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
			ND	**µg Cl-/L**							
647	THM-ICR	1,2,3-Trichloropropane (Surrogate)	104.0	%	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
648	THM-ICR	Bromodichloromethane	3.1	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
649	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
650	THM-ICR	Chloroform	2.7	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
651	THM-ICR	Dibromochloromethane	2.4	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
652	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/17/98		10/17/98	8-0-329
653	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/17/98		10/17/98	8-0-329
			ND	**1/cm**							

Sample ID: 147.20.Eff-18 **S&H ID:** 9810-191 **Date Sampled:** 10/18/98 5:40:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
654	Cl2Dose	Chlorine Dose	1.78	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/21/98		10/21/98	n/a
655	Cl2Res	Chlorine Residual	0.97	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/21/98		10/22/98	n/a
656	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.0	%	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
657	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.0	%	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
658	HAA-ICR	Bromochloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
659	HAA-ICR	Bromodichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
660	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/23/98	10/24/98	0-248-0
661	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
662	HAA-ICR	Dichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
663	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
664	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/23/98	10/24/98	0-248-0
665	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/22/98	10/23/98	10/24/98	0-248-0
666	HAA-ICR	Trichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	10/22/98	10/23/98	10/24/98	0-248-0
667	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/22/98	n/a
668	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/21/98	n/a
669	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/18/98		10/18/98	n/a
670	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/21/98		10/22/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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671	TEMP	Temperature	21.7	ºC	SM 2550 B	1	n/a	10/18/98		10/18/98	n/a
672	TIME	Cl2 Incubation Time	23.7	hrs	n/a	1	n/a	10/21/98		10/22/98	n/a
673	TOC-ICR	TOC	0.72	mg/L	SM 5310 C	1	0.50	10/18/98		10/18/98	7-0-435
674	TOC-ICR	TOC (Dupl)	0.74	mg/L	SM 5310 C	1	0.50	10/18/98		10/18/98	7-0-435
			0.73	**mg/L**	**2.7 % RPD**						
675	TOX-ICR	TOX	31	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/26/98	12-0-233
676	TOX-ICR	TOX (Dupl)	31	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/26/98	12-0-233
			31	**µg Cl-/L**	**0.0 % RPD**						
677	THM-ICR	1,2,3-Trichloropropane (Surrogate)	98.4	%	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
678	THM-ICR	Bromodichloromethane	4.3	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
679	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
680	THM-ICR	Chloroform	3.9	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
681	THM-ICR	Dibromochloromethane	2.9	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
682	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/18/98		10/18/98	8-0-330
683	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/18/98		10/18/98	8-0-330
			ND	**1/cm**							

Sample ID: 147.20.Eff-21 **S&H ID:** 9810-194 **Date Sampled:** 10/19/98 7:02:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
684	Cl2Dose	Chlorine Dose	1.86	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/21/98		10/21/98	n/a
685	Cl2Res	Chlorine Residual	1.07	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/21/98		10/22/98	n/a
686	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.4	%	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
687	HAA-ICR	2-Bromopropionic acid (Surrogate)	91.6	%	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
688	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
689	HAA-ICR	Bromodichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
690	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/28/98	10/28/98	0-255-0
691	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
692	HAA-ICR	Dichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
693	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
694	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/28/98	10/28/98	0-255-0
695	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/22/98	10/28/98	10/28/98	0-255-0
696	HAA-ICR	Trichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
697	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/22/98	n/a
698	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/21/98	n/a
699	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
700	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/21/98		10/22/98	n/a
701	TEMP	Temperature	21.3	ºC	SM 2550 B	1	n/a	10/19/98		10/19/98	n/a
702	TIME	Cl2 Incubation Time	23.8	hrs	n/a	1	n/a	10/21/98		10/22/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

703	TOC-ICR	TOC	0.87	mg/L	SM 5310 C	1	0.50	10/19/98		10/20/98	7-0-437
704	TOC-ICR	TOC (Dupl)	0.87	mg/L	SM 5310 C	1	0.50	10/19/98		10/20/98	7-0-437
			0.87	**mg/L**	**0.0 % RPD**						
705	TOX-ICR	TOX	40	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/26/98	12-0-233
706	TOX-ICR	TOX (Dupl)	37	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/26/98	12-0-233
			39	**µg Cl-/L**	**7.7 % RPD**						
707	THM-ICR	1,2,3-Trichloropropane (Surrogate)	90.8	%	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
708	THM-ICR	1,2,3-Trichloropropane (Surrogate) (Lab Dupl)	94.4	%	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
			92.6	**%**	**3.9 % RPD**						
709	THM-ICR	Bromodichloromethane	5.4	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
710	THM-ICR	Bromodichloromethane (Lab Dupl)	5.3	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
			5.3	**µg/L**	**1.9 % RPD**						
711	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
712	THM-ICR	Bromoform (Lab Dupl)	ND	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
			ND	**µg/L**							
713	THM-ICR	Chloroform	5.5	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
714	THM-ICR	Chloroform (Lab Dupl)	5.4	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
			5.5	**µg/L**	**1.8 % RPD**						
715	THM-ICR	Dibromochloromethane	3.0	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
716	THM-ICR	Dibromochloromethane (Lab Dupl)	3.1	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
			3.0	**µg/L**	**3.3 % RPD**						
717	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/19/98		10/20/98	8-0-333
718	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/19/98		10/20/98	8-0-333
			ND	**1/cm**							

Sample ID: 147.20.Eff-24 **S&H ID:** 9810-197 **Date Sampled:** 10/21/98 3:02:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
719	Cl2Dose	Chlorine Dose	1.92	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/22/98		10/22/98	n/a
720	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/22/98		10/23/98	n/a
721	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	87.2	%	EPA 552.2	1	1.0	10/23/98	10/28/98	10/28/98	0-255-0
722	HAA-ICR	2-Bromopropionic acid (Surrogate)	93.2	%	EPA 552.2	1	1.0	10/23/98	10/28/98	10/28/98	0-255-0
723	HAA-ICR	Bromochloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	10/23/98	10/28/98	10/28/98	0-255-0
724	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	10/23/98	10/28/98	10/28/98	0-255-0
725	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/23/98	10/28/98	10/28/98	0-255-0
726	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/23/98	10/28/98	10/28/98	0-255-0
727	HAA-ICR	Dichloroacetic acid	2.9	µg/L	EPA 552.2	1	1.0	10/23/98	10/28/98	10/28/98	0-255-0
728	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/23/98	10/28/98	10/28/98	0-255-0
729	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/23/98	10/28/98	10/28/98	0-255-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

730	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/23/98	10/28/98	10/28/98	0-255-0
731	HAA-ICR	Trichloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	10/23/98	10/28/98	10/28/98	0-255-0
732	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	10/22/98		10/23/98	n/a
733	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/22/98		10/22/98	n/a
734	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/21/98	n/a
735	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/22/98		10/23/98	n/a
736	TEMP	Temperature	20.6	ºC	SM 2550 B	1	n/a	10/21/98		10/21/98	n/a
737	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/22/98		10/23/98	n/a
738	TOC-ICR	TOC	0.97	mg/L	SM 5310 C	1	0.50	10/21/98		10/21/98	7-0-438
739	TOC-ICR	TOC (Dupl)	0.97	mg/L	SM 5310 C	1	0.50	10/21/98		10/21/98	7-0-438
			0.97	**mg/L**	**0.0 % RPD**						
740	TOX-ICR	TOX	49	µg Cl-/L	SM 5320 B	1	25	10/23/98		10/27/98	12-0-234
741	TOX-ICR	TOX (Dupl)	52	µg Cl-/L	SM 5320 B	1	25	10/23/98		10/27/98	12-0-234
			51	**µg Cl-/L**	**5.9 % RPD**						
742	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.8	%	EPA 551.1	1	1.0	10/23/98	10/26/98	10/26/98	0-249-0
743	THM-ICR	Bromodichloromethane	6.0	µg/L	EPA 551.1	1	1.0	10/23/98	10/26/98	10/26/98	0-249-0
744	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/23/98	10/26/98	10/26/98	0-249-0
745	THM-ICR	Chloroform	6.8	µg/L	EPA 551.1	1	1.0	10/23/98	10/26/98	10/26/98	0-249-0
746	THM-ICR	Dibromochloromethane	3.2	µg/L	EPA 551.1	1	1.0	10/23/98	10/26/98	10/26/98	0-249-0
747	UV-ICR	UV	0.010	1/cm	SM 5910 B	1	0.009	10/21/98		10/21/98	8-0-334
748	UV-ICR	UV (Dupl)	0.010	1/cm	SM 5910 B	1	0.009	10/21/98		10/21/98	8-0-334
			0.010	**1/cm**	**0.0 % RPD**						

Sample ID: 147.20.Eff-25 **S&H ID:** 9810-198 **Date Sampled:** 10/21/98 6:52:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
749	Cl2Dose	Chlorine Dose	1.95	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/26/98		10/26/98	n/a
750	Cl2Res	Chlorine Residual	0.72	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/26/98		10/27/98	n/a
751	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	86.8	%	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
752	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.0	%	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
753	HAA-ICR	Bromochloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
754	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
755	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/27/98	10/28/98	10/29/98	0-255-0
756	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
757	HAA-ICR	Dichloroacetic acid	3.4	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
758	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
759	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/27/98	10/28/98	10/29/98	0-255-0
760	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/27/98	10/28/98	10/29/98	0-255-0
761	HAA-ICR	Trichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

762	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/27/98	n/a
763	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/26/98	n/a
764	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/21/98	n/a
765	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/26/98		10/27/98	n/a
766	TEMP	Temperature	21.3	ºC	SM 2550 B	1	n/a	10/21/98		10/21/98	n/a
767	TIME	Cl2 Incubation Time	24.3	hrs	n/a	1	n/a	10/26/98		10/27/98	n/a
768	TOC-ICR	TOC	1.06	mg/L	SM 5310 C	1	0.50	10/21/98		10/22/98	7-0-439
769	TOC-ICR	TOC (Dupl)	1.08	mg/L	SM 5310 C	1	0.50	10/21/98		10/22/98	7-0-439
			1.07	**mg/L**	**1.9 % RPD**						
770	TOX-ICR	TOX	61	µg Cl-/L	SM 5320 B	1	25	10/27/98		10/28/98	12-0-235
771	TOX-ICR	TOX (Dupl)	60	µg Cl-/L	SM 5320 B	1	25	10/27/98		10/28/98	12-0-235
			61	**µg Cl-/L**	**1.6 % RPD**						
772	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.0	%	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
773	THM-ICR	Bromodichloromethane	7.2	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
774	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
775	THM-ICR	Chloroform	9.3	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
776	THM-ICR	Dibromochloromethane	3.5	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
777	UV-ICR	UV	0.011	1/cm	SM 5910 B	1	0.009	10/21/98		10/22/98	8-0-335
778	UV-ICR	UV (Dupl)	0.011	1/cm	SM 5910 B	1	0.009	10/21/98		10/22/98	8-0-335
			0.011	**1/cm**	**0.0 % RPD**						

Sample ID: 147.20.Eff-29 **S&H ID:** 9810-202 **Date Sampled:** 10/24/98 9:51:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
779	Cl2Dose	Chlorine Dose	2.02	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/26/98		10/26/98	n/a
780	Cl2Res	Chlorine Residual	0.77	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/26/98		10/27/98	n/a
781	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	86.4	%	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
782	HAA-ICR	2-Bromopropionic acid (Surrogate)	102.8	%	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
783	HAA-ICR	Bromochloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
784	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
785	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/27/98	10/28/98	10/29/98	0-255-0
786	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
787	HAA-ICR	Dichloroacetic acid	4.1	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
788	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
789	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/27/98	10/28/98	10/29/98	0-255-0
790	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/27/98	10/28/98	10/29/98	0-255-0
791	HAA-ICR	Trichloroacetic acid	3.1	µg/L	EPA 552.2	1	1.0	10/27/98	10/28/98	10/29/98	0-255-0
792	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/27/98	n/a
793	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/26/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

794	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/26/98		10/27/98	n/a
795	TEMP	Temperature	19.1	ºC	SM 2550 B	1	n/a	10/24/98		10/24/98	n/a
796	TIME	Cl2 Incubation Time	24.4	hrs	n/a	1	n/a	10/26/98		10/27/98	n/a
797	TOC-ICR	TOC	1.20	mg/L	SM 5310 C	1	0.50	10/24/98		10/24/98	7-0-441
798	TOC-ICR	TOC (Dupl)	1.18	mg/L	SM 5310 C	1	0.50	10/24/98		10/24/98	7-0-441
			1.19	**mg/L**	**1.7 % RPD**						
799	TOX-ICR	TOX	72	µg Cl-/L	SM 5320 B	1	25	10/27/98		10/28/98	12-0-235
800	TOX-ICR	TOX (Dupl)	69	µg Cl-/L	SM 5320 B	1	25	10/27/98		10/28/98	12-0-235
			71	**µg Cl-/L**	**4.2 % RPD**						
801	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.8	%	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
802	THM-ICR	Bromodichloromethane	8.0	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
803	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
804	THM-ICR	Chloroform	11.4	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
805	THM-ICR	Dibromochloromethane	3.5	µg/L	EPA 551.1	1	1.0	10/27/98	11/2/98	11/2/98	0-257-0
806	UV-ICR	UV	0.013	1/cm	SM 5910 B	1	0.009	10/24/98		10/25/98	8-0-338
807	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	10/24/98		10/25/98	8-0-338
			0.013	**1/cm**	**0.0 % RPD**						

Sample ID: 147.20.Eff-30 **S&H ID:** 9810-203 **Date Sampled:** 10/26/98 2:33:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
808	Cl2Dose	Chlorine Dose	2.29	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/28/98		10/28/98	n/a
809	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/28/98		10/29/98	n/a
810	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.0	%	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
811	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.2	%	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
812	HAA-ICR	Bromochloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
813	HAA-ICR	Bromodichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
814	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/29/98	11/3/98	11/3/98	0-260-0
815	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
816	HAA-ICR	Dichloroacetic acid	5.1	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
817	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
818	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/29/98	11/3/98	11/3/98	0-260-0
819	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/29/98	11/3/98	11/3/98	0-260-0
820	HAA-ICR	Trichloroacetic acid	4.6	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
821	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	10/28/98		10/29/98	n/a
822	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/28/98		10/28/98	n/a
823	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/26/98	n/a
824	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/28/98		10/29/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

825	TEMP	Temperature	20.4	ºC	SM 2550 B	1	n/a	10/26/98		10/26/98	n/a
826	TIME	Cl2 Incubation Time	23.8	hrs	n/a	1	n/a	10/28/98		10/29/98	n/a
827	TOC-ICR	TOC	1.45	mg/L	SM 5310 C	1	0.50	10/26/98		10/27/98	7-0-444
828	TOC-ICR	TOC	1.31	mg/L	SM 5310 C	1	0.50	10/26/98		10/26/98	7-0-443
829	TOC-ICR	TOC (Dupl)	1.50	mg/L	SM 5310 C	1	0.50	10/26/98		10/27/98	7-0-444
830	TOC-ICR	TOC (Dupl)	1.38	mg/L	SM 5310 C	1	0.50	10/26/98		10/26/98	7-0-443
			1.41	**mg/L**	**5.9 % RPD**						
831	TOX-ICR	TOX	82	µg Cl-/L	SM 5320 B	1	25	10/29/98		10/30/98	12-0-237
832	TOX-ICR	TOX (Dupl)	81	µg Cl-/L	SM 5320 B	1	25	10/29/98		10/30/98	12-0-237
			82	**µg Cl-/L**	**1.2 % RPD**						
833	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.8	%	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
834	THM-ICR	Bromodichloromethane	8.4	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
835	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
836	THM-ICR	Chloroform	14.2	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
837	THM-ICR	Dibromochloromethane	3.2	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
838	UV-ICR	UV	0.016	1/cm	SM 5910 B	1	0.009	10/26/98		10/26/98	8-0-339
839	UV-ICR	UV (Dupl)	0.016	1/cm	SM 5910 B	1	0.009	10/26/98		10/26/98	8-0-339
			0.016	**1/cm**	**0.0 % RPD**						

Sample ID: 147.20.Eff-9d **S&H ID:** 9810-204 **Date Sampled:** 10/15/98 6:37:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
840	Cl2Dose	Chlorine Dose	1.91	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/19/98		10/19/98	n/a
841	Cl2Res	Chlorine Residual	1.31	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/19/98		10/20/98	n/a
842	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.8	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
843	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.2	%	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
844	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
845	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
846	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/24/98	0-248-0
847	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
848	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
849	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
850	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/20/98	10/23/98	10/24/98	0-248-0
851	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/20/98	10/23/98	10/24/98	0-248-0
852	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/20/98	10/23/98	10/24/98	0-248-0
853	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/20/98	n/a
854	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
855	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/15/98		10/15/98	n/a
856	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/19/98		10/20/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

857	TEMP	Temperature	21.5	ºC	SM 2550 B	1	n/a	10/15/98		10/15/98	n/a
858	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	10/19/98		10/20/98	n/a
859	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	10/15/98		10/16/98	7-0-433
860	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	10/15/98		10/16/98	7-0-433
			ND	**mg/L**							
861	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
862	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	10/20/98		10/23/98	12-0-232
			ND	**µg Cl-/L**							
863	THM-ICR	1,2,3-Trichloropropane (Surrogate)	101.2	%	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
864	THM-ICR	Bromodichloromethane	1.7	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
865	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
866	THM-ICR	Chloroform	1.5	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
867	THM-ICR	Dibromochloromethane	1.6	µg/L	EPA 551.1	1	1.0	10/20/98	10/26/98	10/26/98	0-249-0
868	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/15/98		10/16/98	8-0-328
869	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/15/98		10/16/98	8-0-328
			ND	**1/cm**							

Sample ID: 147.20.Eff-21d **S&H ID:** 9810-209 **Date Sampled:** 10/19/98 7:02:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
870	Cl2Dose	Chlorine Dose	1.86	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/21/98		10/21/98	n/a
871	Cl2Res	Chlorine Residual	1.03	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/21/98		10/22/98	n/a
872	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	93.6	%	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
873	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.0	%	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
874	HAA-ICR	Bromochloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
875	HAA-ICR	Bromodichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
876	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/28/98	10/28/98	0-255-0
877	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
878	HAA-ICR	Dichloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
879	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
880	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/22/98	10/28/98	10/28/98	0-255-0
881	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/22/98	10/28/98	10/28/98	0-255-0
882	HAA-ICR	Trichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	10/22/98	10/28/98	10/28/98	0-255-0
883	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/22/98	n/a
884	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/21/98		10/21/98	n/a
885	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/19/98		10/19/98	n/a
886	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/21/98		10/22/98	n/a
887	TEMP	Temperature	21.2	ºC	SM 2550 B	1	n/a	10/19/98		10/19/98	n/a
888	TIME	Cl2 Incubation Time	23.8	hrs	n/a	1	n/a	10/21/98		10/22/98	n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

889	TOC-ICR	TOC	0.86	mg/L	SM 5310 C	1	0.50	10/19/98		10/20/98	7-0-437
890	TOC-ICR	TOC (Dupl)	0.87	mg/L	SM 5310 C	1	0.50	10/19/98		10/20/98	7-0-437
			0.86	**mg/L**	**1.2 % RPD**						
891	TOX-ICR	TOX	44	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/27/98	12-0-234
892	TOX-ICR	TOX (Dupl)	43	µg Cl-/L	SM 5320 B	1	25	10/22/98		10/27/98	12-0-234
			44	**µg Cl-/L**	**2.3 % RPD**						
893	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.8	%	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
894	THM-ICR	Bromodichloromethane	5.6	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
895	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
896	THM-ICR	Chloroform	5.6	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
897	THM-ICR	Dibromochloromethane	3.4	µg/L	EPA 551.1	1	1.0	10/22/98	10/26/98	10/26/98	0-249-0
898	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	10/19/98		10/20/98	8-0-333
899	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	10/19/98		10/20/98	8-0-333
			ND	**1/cm**							

Sample ID: 147.20.Eff-30d **S&H ID:** 9810-211 **Date Sampled:** 10/26/98 2:33:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
900	Cl2Dose	Chlorine Dose	2.29	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/28/98		10/28/98	n/a
901	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/28/98		10/29/98	n/a
902	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	101.6	%	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
903	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
904	HAA-ICR	Bromochloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
905	HAA-ICR	Bromodichloroacetic acid	2.4	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
906	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/29/98	11/3/98	11/3/98	0-260-0
907	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
908	HAA-ICR	Dichloroacetic acid	5.4	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
909	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
910	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/29/98	11/3/98	11/3/98	0-260-0
911	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/29/98	11/3/98	11/3/98	0-260-0
912	HAA-ICR	Trichloroacetic acid	5.4	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
913	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	10/28/98		10/29/98	n/a
914	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/28/98		10/28/98	n/a
915	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/26/98	n/a
916	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/28/98		10/29/98	n/a
917	TEMP	Temperature	20.4	ºC	SM 2550 B	1	n/a	10/26/98		10/26/98	n/a
918	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	10/28/98		10/29/98	n/a
919	TOC-ICR	TOC	1.35	mg/L	SM 5310 C	1	0.50	10/26/98		10/26/98	7-0-443
920	TOC-ICR	TOC (Dupl)	1.39	mg/L	SM 5310 C	1	0.50	10/26/98		10/26/98	7-0-443

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

			1.37	**mg/L**	**2.9 % RPD**						
921	TOX-ICR	TOX	79	µg Cl-/L	SM 5320 B	1	25	10/29/98		10/30/98	12-0-237
922	TOX-ICR	TOX (Dupl)	72	µg Cl-/L	SM 5320 B	1	25	10/29/98		10/30/98	12-0-237
			76	**µg Cl-/L**	**9.2 % RPD**						
923	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.4	%	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
924	THM-ICR	Bromodichloromethane	8.5	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
925	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
926	THM-ICR	Chloroform	14.0	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
927	THM-ICR	Dibromochloromethane	3.3	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
928	UV-ICR	UV	0.016	1/cm	SM 5910 B	1	0.009	10/26/98		10/26/98	8-0-339
929	UV-ICR	UV (Dupl)	0.016	1/cm	SM 5910 B	1	0.009	10/26/98		10/26/98	8-0-339
			0.016	**1/cm**	**0.0 % RPD**						

Sample ID: 147.Inf.A-1 **S&H ID:** 9810-214 **Date Sampled:** 10/8/98 5:20:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
930	ALK	Alkalinity	25	mg/L	SM 2320 B	1	5	10/8/98		10/9/98	1-0-35
931	ALK	Alkalinity (Dupl)	23	mg/L	SM 2320 B	1	5	10/8/98		10/9/98	1-0-35
			24	**mg/L**	**8.3 % RPD**						
932	NH3	Ammonia Nitrogen	0.06	mg/L	EPA 350.1	1	0.05	10/8/98		10/26/98	MW86398
933	BR	Bromide	0.028	mg/L	EPA 300.0 A	1	0.020	10/8/98		10/16/98	MW86042
934	CaHardM	Calcium Hardness	21	mg/L CaCO3	EPA 200.7	1	5	10/8/98		10/15/98	MW n/a
935	CaMW	Calcium, Total, ICAP	8	mg/L	EPA 200.7	1	1	10/8/98	10/15/98	10/15/98	MW85823
936	MgMW	Magnesium, Total, ICAP	3	mg/L	EPA 200.7	1	0	10/8/98	10/15/98	10/15/98	MW85872
937	TotHard	Total Hardness as CaCO3 by ICP	32	mg/L CaCO3	SM 2340B	1	7	10/8/98		10/15/98	MW n/a

Sample ID: 147.Inf.A-2 **S&H ID:** 9810-215 **Date Sampled:** 10/20/98 10:00:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
938	ALK	Alkalinity	20	mg/L	SM 2320 B	1	5	10/20/98		10/20/98	1-0-35
939	ALK	Alkalinity (Dupl)	21	mg/L	SM 2320 B	1	5	10/20/98		10/20/98	1-0-35
			21	**mg/L**	**4.8 % RPD**						
940	NH3	Ammonia Nitrogen	0.09	mg/L	EPA 350.1	1	0.05	10/20/98		10/28/98	MW86614
941	BR	Bromide	0.028	mg/L	EPA 300.0 A	1	0.020	10/20/98		10/27/98	MW86459
942	CaHardM	Calcium Hardness	21	mg/L CaCO3	EPA 200.7	1	5	10/20/98		10/22/98	MW n/a
943	CaMW	Calcium, Total, ICAP	8	mg/L	EPA 200.7	1	1	10/20/98	10/23/98	10/22/98	MW86297
944	MgMW	Magnesium, Total, ICAP	3	mg/L	EPA 200.7	1	0	10/20/98	10/23/98	10/22/98	MW86300
945	TotHard	Total Hardness as CaCO3 by ICP	32	mg/L CaCO3	SM 2340B	1	7	10/20/98		10/22/98	MW n/a

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Sample ID: 147.Inf.B-1 **S&H ID:** 9810-216 **Date Sampled:** 10/8/98 5:25:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
946	Cl2Dose	Chlorine Dose	3.35	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/13/98		10/13/98	n/a
947	Cl2Res	Chlorine Residual	1.02	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/13/98		10/14/98	n/a
948	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.8	%	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
949	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard) (Lab Dupl)	95.2	%	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
			97.0	**%**	**3.7 % RPD**						
950	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.8	%	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
951	HAA-ICR	2-Bromopropionic acid (Surrogate) (Lab Dupl)	101.6	%	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
			100.2	**%**	**2.8 % RPD**						
952	HAA-ICR	Bromochloroacetic acid	3.1	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
953	HAA-ICR	Bromochloroacetic acid (Lab Dupl)	3.0	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
			3.0	**µg/L**	**3.3 % RPD**						
954	HAA-ICR	Bromodichloroacetic acid	3.3	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
955	HAA-ICR	Bromodichloroacetic acid (Lab Dupl)	2.9	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
			3.1	**µg/L**	**12.9 % RPD**						
956	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/14/98	10/20/98	10/20/98	0-247-0
957	HAA-ICR	Chlorodibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	10/14/98	10/20/98	10/20/98	0-247-0
			ND	**µg/L**							
958	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
959	HAA-ICR	Dibromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
			ND	**µg/L**							
960	HAA-ICR	Dichloroacetic acid	11.5	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
961	HAA-ICR	Dichloroacetic acid (Lab Dupl)	11.3	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
			11.4	**µg/L**	**1.8 % RPD**						
962	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
963	HAA-ICR	Monobromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
			ND	**µg/L**							
964	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/14/98	10/20/98	10/20/98	0-247-0
965	HAA-ICR	Monochloroacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	2.0	10/14/98	10/20/98	10/20/98	0-247-0
			ND	**µg/L**							
966	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/14/98	10/20/98	10/20/98	0-247-0
967	HAA-ICR	Tribromoacetic acid (Lab Dupl)	ND	µg/L	EPA 552.2	1	4.0	10/14/98	10/20/98	10/20/98	0-247-0
			ND	**µg/L**							
968	HAA-ICR	Trichloroacetic acid	12.8	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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969	HAA-ICR	Trichloroacetic acid (Lab Dupl)	11.5	µg/L	EPA 552.2	1	1.0	10/14/98	10/20/98	10/20/98	0-247-0
			12.2	**µg/L**	**10.7 % RPD**						
970	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/14/98	n/a
971	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	10/13/98		10/13/98	n/a
972	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	10/8/98		10/8/98	n/a
973	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	10/13/98		10/14/98	n/a
974	TEMP	Temperature	19.9	ºC	SM 2550 B	1	n/a	10/8/98		10/8/98	n/a
975	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	10/13/98		10/14/98	n/a
976	TOC-ICR	TOC	2.00	mg/L	SM 5310 C	1	0.50	10/8/98		10/9/98	7-0-426
977	TOC-ICR	TOC (Dupl)	2.01	mg/L	SM 5310 C	1	0.50	10/8/98		10/9/98	7-0-426
			2.00	**mg/L**	**0.5 % RPD**						
978	TOX-ICR	TOX	151	µg Cl-/L	SM 5320 B	1	25	10/14/98		10/20/98	12-0-229
979	TOX-ICR	TOX (Dupl)	153	µg Cl-/L	SM 5320 B	1	25	10/14/98		10/20/98	12-0-229
			152	**µg Cl-/L**	**1.3 % RPD**						
980	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.4	%	EPA 551.1	1	1.0	10/14/98	10/21/98	10/21/98	0-246-0
981	THM-ICR	Bromodichloromethane	9.9	µg/L	EPA 551.1	1	1.0	10/14/98	10/21/98	10/21/98	0-246-0
982	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/14/98	10/21/98	10/21/98	0-246-0
983	THM-ICR	Chloroform	28.9	µg/L	EPA 551.1	1	1.0	10/14/98	10/21/98	10/21/98	0-246-0
984	THM-ICR	Dibromochloromethane	2.2	µg/L	EPA 551.1	1	1.0	10/14/98	10/21/98	10/21/98	0-246-0
985	TURB	Turbidity	0.10	ntu	SM 2130 B	1	0.05	10/8/98		10/8/98	9-0-18
986	UV-ICR	UV	0.032	1/cm	SM 5910 B	1	0.009	10/8/98		10/9/98	8-0-320
987	UV-ICR	UV (Dupl)	0.032	1/cm	SM 5910 B	1	0.009	10/8/98		10/9/98	8-0-320
			0.032	**1/cm**	**0.0 % RPD**						

Sample ID: 147.Inf.B-2 **S&H ID:** 9810-217 **Date Sampled:** 10/12/98 10:12:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
988	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	10/12/98		10/12/98	n/a
989	TEMP	Temperature	17.6	ºC	SM 2550 B	1	n/a	10/12/98		10/12/98	n/a
990	TOC-ICR	TOC	2.00	mg/L	SM 5310 C	1	0.50	10/12/98		10/12/98	7-0-429
991	TOC-ICR	TOC (Dupl)	2.01	mg/L	SM 5310 C	1	0.50	10/12/98		10/12/98	7-0-429
			2.00	**mg/L**	**0.5 % RPD**						

Sample ID: 147.Inf.B-3 **S&H ID:** 9810-218 **Date Sampled:** 10/14/98 10:25:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
992	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/14/98		10/14/98	n/a
993	TEMP	Temperature	16.5	ºC	SM 2550 B	1	n/a	10/14/98		10/14/98	n/a
994	TOC-ICR	TOC	2.10	mg/L	SM 5310 C	1	0.50	10/14/98		10/14/98	7-0-431
995	TOC-ICR	TOC (Dupl)	2.04	mg/L	SM 5310 C	1	0.50	10/14/98		10/14/98	7-0-431

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

			2.07	**mg/L**	**2.9 % RPD**						

Sample ID: 147.Inf.B-4 **S&H ID:** 9810-219 **Date Sampled:** 10/20/98 10:00:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
996	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	10/20/98		10/20/98	n/a
997	TEMP	Temperature	15.8	ºC	SM 2550 B	1	n/a	10/20/98		10/20/98	n/a
998	TOC-ICR	TOC	1.96	mg/L	SM 5310 C	1	0.50	10/20/98		10/20/98	7-0-437
999	TOC-ICR	TOC (Dupl)	1.97	mg/L	SM 5310 C	1	0.50	10/20/98		10/20/98	7-0-437
			1.96	**mg/L**	**0.5 % RPD**						
1000	TURB	Turbidity	0.10	ntu	SM 2130 B	1	0.05	10/20/98		10/20/98	9-0-19
1001	UV-ICR	UV	0.032	1/cm	SM 5910 B	1	0.009	10/20/98		10/21/98	8-0-334
1002	UV-ICR	UV (Dupl)	0.032	1/cm	SM 5910 B	1	0.009	10/20/98		10/21/98	8-0-334
			0.032	**1/cm**	**0.0 % RPD**						

Sample ID: 147.Inf.B-5 **S&H ID:** 9810-220 **Date Sampled:** 10/26/98 10:15:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1003	Cl2Dose	Chlorine Dose	3.33	mg/L as Cl2	SM 4500-Cl B	1	n/a	10/28/98		10/28/98	n/a
1004	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	10/28/98		10/29/98	n/a
1005	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	99.6	%	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
1006	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.4	%	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
1007	HAA-ICR	Bromochloroacetic acid	2.6	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
1008	HAA-ICR	Bromodichloroacetic acid	2.6	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
1009	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/29/98	11/3/98	11/3/98	0-260-0
1010	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
1011	HAA-ICR	Dichloroacetic acid	10.4	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
1012	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
1013	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	10/29/98	11/3/98	11/3/98	0-260-0
1014	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	10/29/98	11/3/98	11/3/98	0-260-0
1015	HAA-ICR	Trichloroacetic acid	10.9	µg/L	EPA 552.2	1	1.0	10/29/98	11/3/98	11/3/98	0-260-0
1016	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	10/28/98		10/29/98	n/a
1017	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	10/28/98		10/28/98	n/a
1018	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	10/26/98		10/26/98	n/a
1019	TEMP	Cl2 Temperature	19.8	ºC	SM 2550 B	1	n/a	10/28/98		10/29/98	n/a
1020	TEMP	Temperature	16.7	ºC	SM 2550 B	1	n/a	10/26/98		10/26/98	n/a
1021	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	10/28/98		10/29/98	n/a
1022	TOC-ICR	TOC	2.02	mg/L	SM 5310 C	1	0.50	10/26/98		10/26/98	7-0-443
1023	TOC-ICR	TOC (Dupl)	2.00	mg/L	SM 5310 C	1	0.50	10/26/98		10/26/98	7-0-443

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

			2.01	**mg/L**	**1.0 % RPD**						
1024	TOX-ICR	TOX	157	µg Cl-/L	SM 5320 B	1	25	10/29/98		10/30/98	12-0-237
1025	TOX-ICR	TOX (Dupl)	156	µg Cl-/L	SM 5320 B	1	25	10/29/98		10/30/98	12-0-237
			157	**µg Cl-/L**	**0.6 % RPD**						
1026	THM-ICR	1,2,3-Trichloropropane (Surrogate)	95.2	%	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
1027	THM-ICR	Bromodichloromethane	10.2	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
1028	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
1029	THM-ICR	Chloroform	31.0	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
1030	THM-ICR	Dibromochloromethane	2.3	µg/L	EPA 551.1	1	1.0	10/29/98	11/2/98	11/2/98	0-257-0
1031	TURB	Turbidity	0.10	ntu	SM 2130 B	1	0.05	10/26/98		10/26/98	9-0-19
1032	UV-ICR	UV	0.032	1/cm	SM 5910 B	1	0.009	10/26/98		10/26/98	8-0-339
1033	UV-ICR	UV (Dupl)	0.032	1/cm	SM 5910 B	1	0.009	10/26/98		10/26/98	8-0-339
			0.032	**1/cm**	**0.0 % RPD**						

Sample ID: 147.Inf.B-6 **S&H ID:** 9810-221 **Date Sampled:** 10/29/98 8:00:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1034	Cl2Dose	Chlorine Dose	3.32	mg/L as Cl2	SM 4500-Cl B	1	n/a	11/1/98		11/1/98	n/a
1035	Cl2Res	Chlorine Residual	1.03	mg/L as Cl2	SM 4500-Cl F	1	0.10	11/1/98		11/2/98	n/a
1036	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	101.2	%	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1037	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.0	%	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1038	HAA-ICR	Bromochloroacetic acid	3.3	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1039	HAA-ICR	Bromodichloroacetic acid	3.3	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1040	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	11/2/98	11/3/98	11/4/98	0-260-0
1041	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1042	HAA-ICR	Dichloroacetic acid	11.5	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1043	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1044	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	11/2/98	11/3/98	11/4/98	0-260-0
1045	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	11/2/98	11/3/98	11/4/98	0-260-0
1046	HAA-ICR	Trichloroacetic acid	13.8	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1047	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	11/1/98		11/2/98	n/a
1048	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	11/1/98		11/1/98	n/a
1049	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	10/29/98		10/29/98	n/a
1050	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	11/1/98		11/2/98	n/a
1051	TEMP	Temperature	18.7	ºC	SM 2550 B	1	n/a	10/29/98		10/29/98	n/a
1052	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	11/1/98		11/2/98	n/a
1053	TOC-ICR	TOC	2.05	mg/L	SM 5310 C	1	0.50	10/29/98		10/29/98	7-0-446
1054	TOC-ICR	TOC (Dupl)	2.04	mg/L	SM 5310 C	1	0.50	10/29/98		10/29/98	7-0-446

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

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Study Title: ICR RSSCT #3

			2.04	**mg/L**	**0.5 % RPD**						
1055	TOX-ICR	TOX	163	µg Cl-/L	SM 5320 B	1	25	11/2/98		11/3/98	12-0-239
1056	TOX-ICR	TOX (Dupl)	154	µg Cl-/L	SM 5320 B	1	25	11/2/98		11/3/98	12-0-239
			159	**µg Cl-/L**	**5.7 % RPD**						
1057	THM-ICR	1,2,3-Trichloropropane (Surrogate)	103.6	%	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1058	THM-ICR	Bromodichloromethane	10.7	µg/L	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1059	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1060	THM-ICR	Chloroform	27.4	µg/L	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1061	THM-ICR	Dibromochloromethane	3.2	µg/L	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1062	TURB	Turbidity	0.05	ntu	SM 2130 B	1	0.05	10/29/98		10/29/98	9-0-19
1063	UV-ICR	UV	0.033	1/cm	SM 5910 B	1	0.009	10/29/98		10/30/98	8-0-342
1064	UV-ICR	UV (Dupl)	0.032	1/cm	SM 5910 B	1	0.009	10/29/98		10/30/98	8-0-342
			0.033	**1/cm**	**3.0 % RPD**						

Sample ID: 147.20.Eff-31 **S&H ID:** 9810-499 **Date Sampled:** 10/27/98 2:48:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1065	TOC-ICR	TOC	1.38	mg/L	SM 5310 C	1	0.50	10/27/98		10/27/98	7-0-444
1066	TOC-ICR	TOC (Dupl)	1.41	mg/L	SM 5310 C	1	0.50	10/27/98		10/27/98	7-0-444
			1.40	**mg/L**	**2.1 % RPD**						
1067	UV-ICR	UV	0.017	1/cm	SM 5910 B	1	0.009	10/27/98		10/28/98	8-0-341
1068	UV-ICR	UV (Dupl)	0.017	1/cm	SM 5910 B	1	0.009	10/27/98		10/28/98	8-0-341
			0.017	**1/cm**	**0.0 % RPD**						

Sample ID: 147.20.Eff-33 **S&H ID:** 9810-501 **Date Sampled:** 10/29/98 2:45:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1069	Cl2Dose	Chlorine Dose	2.38	mg/L as Cl2	SM 4500-Cl B	1	n/a	11/1/98		11/1/98	n/a
1070	Cl2Res	Chlorine Residual	0.97	mg/L as Cl2	SM 4500-Cl F	1	0.10	11/1/98		11/2/98	n/a
1071	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	99.6	%	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1072	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.0	%	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1073	HAA-ICR	Bromochloroacetic acid	2.6	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1074	HAA-ICR	Bromodichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1075	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	11/2/98	11/3/98	11/4/98	0-260-0
1076	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1077	HAA-ICR	Dichloroacetic acid	6.1	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1078	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0
1079	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	11/2/98	11/3/98	11/4/98	0-260-0
1080	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	11/2/98	11/3/98	11/4/98	0-260-0
1081	HAA-ICR	Trichloroacetic acid	5.3	µg/L	EPA 552.2	1	1.0	11/2/98	11/3/98	11/4/98	0-260-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

1082	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	11/1/98		11/2/98	n/a
1083	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	11/1/98		11/1/98	n/a
1084	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	10/29/98		10/29/98	n/a
1085	TEMP	Cl2 Temperature	19.9	ºC	SM 2550 B	1	n/a	11/1/98		11/2/98	n/a
1086	TEMP	Temperature	22.3	ºC	SM 2550 B	1	n/a	10/29/98		10/29/98	n/a
1087	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	11/1/98		11/2/98	n/a
1088	TOC-ICR	TOC	1.45	mg/L	SM 5310 C	1	0.50	10/29/98		10/29/98	7-0-446
1089	TOC-ICR	TOC (Dupl)	1.50	mg/L	SM 5310 C	1	0.50	10/29/98		10/29/98	7-0-446
			1.48	**mg/L**	**3.4 % RPD**						
1090	TOX-ICR	TOX	94	µg Cl-/L	SM 5320 B	1	25	11/2/98		11/3/98	12-0-239
1091	TOX-ICR	TOX (Dupl)	94	µg Cl-/L	SM 5320 B	1	25	11/2/98		11/3/98	12-0-239
			94	**µg Cl-/L**	**0.0 % RPD**						
1092	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.4	%	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1093	THM-ICR	Bromodichloromethane	10.9	µg/L	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1094	THM-ICR	Bromoform	1.0	µg/L	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1095	THM-ICR	Chloroform	16.7	µg/L	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1096	THM-ICR	Dibromochloromethane	5.3	µg/L	EPA 551.1	1	1.0	11/2/98	11/4/98	11/4/98	0-261-0
1097	UV-ICR	UV	0.018	1/cm	SM 5910 B	1	0.009	10/29/98		10/30/98	8-0-342
1098	UV-ICR	UV (Dupl)	0.018	1/cm	SM 5910 B	1	0.009	10/29/98		10/30/98	8-0-342
			0.018	**1/cm**	**0.0 % RPD**						

End of laboratory test results

ND (non-detect): Result is below mininum reporting level (MRL).

NR (not reportable): Result did not meet QC criteria.

Summers & Hooper, Inc.
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Quality Control Report

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Phone: 336-375-2227 Fax: 336-375-2207

Study#: 147
Study Title: ICR RSSCT #3

Analysis: ALK (Alkalinity) **Method:** SM 2320 B

QC Batch ID: 1-0-35

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	100	99	mg/L	99%		10/09/98	9810-214	5		
Matrix Spike (Dupl)	Matrix Spike	100	99	mg/L	99%		10/09/98	9810-214	5		
		100	**99**	**mg/L**	**99%**	**0.0 %**					
Method Blank	Method Blank		ND*	mg/L			10/09/98	9810-227	5		
Standard	Standard	100	100	mg/L	100%		10/09/98	9810-228	5		
Standard (Dupl)	Standard	100	100	mg/L	100%		10/09/98	9810-228	5		
		100	**100**	**mg/L**	**100%**	**0.0 %**					
Matrix Spike	Matrix Spike	100	94	mg/L	94%		10/17/98	9810-392	5		
Matrix Spike (Dupl)	Matrix Spike	100	96	mg/L	96%		10/17/98	9810-392	5		
		100	**95**	**mg/L**	**95%**	**2.1 %**					
Method Blank	Method Blank		ND*	mg/L			10/17/98	9810-402	5		
Standard	Standard	100	101	mg/L	101%		10/17/98	9810-403	5		
Standard (Dupl)	Standard	100	101	mg/L	101%		10/17/98	9810-403	5		
		100	**101**	**mg/L**	**101%**	**0.0 %**					
Matrix Spike	Matrix Spike	100	96	mg/L	96%		10/20/98	9810-215	5		
Matrix Spike (Dupl)	Matrix Spike	100	96	mg/L	96%		10/20/98	9810-215	5		
		100	**96**	**mg/L**	**96%**	**0.0 %**					
Method Blank	Method Blank		ND*	mg/L			10/20/98	9810-428	5		
Standard	Standard	100	97	mg/L	97%		10/20/98	9810-429	5		
Standard (Dupl)	Standard	100	97	mg/L	97%		10/20/98	9810-429	5		
		100	**97**	**mg/L**	**97%**	**0.0 %**					

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-423

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9809-701	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.02	mg/L	100%		9809-701	0.5		
		4.00	**4.01**	**mg/L**	**100%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9810-106	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-106	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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		0.50	**0.52**	**mg/L**	**104%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.95	mg/L	99%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.02	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**3.99**	**mg/L**	**100%**	**1.8 %**			90-110%	10%
Standard	Standard	4.00	3.81	mg/L	95%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.88	mg/L	97%		9810-67	0.5	90-110%	
		4.00	**3.84**	**mg/L**	**96%**	**1.8 %**			90-110%	10%
Standard	Standard	10.00	9.70	mg/L	97%		9809-169	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.82	mg/L	98%		9809-169	0.5	90-110%	
		10.00	**9.76**	**mg/L**	**98%**	**1.2 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-425

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.94	mg/L	98%		9809-737	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.96	mg/L	99%		9809-737	0.5		
		4.00	**3.95**	**mg/L**	**99%**	**0.8 %**				
Method Blank	Method Blank		ND*	mg/L			9810-122	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-122	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.50	mg/L	100%		9809-375	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**3.9 %**			50-150%	20%
Standard	Standard	4.00	3.92	mg/L	98%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.00	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**2.0 %**			90-110%	10%
Standard	Standard	10.00	9.65	mg/L	97%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.76	mg/L	98%		9810-133	0.5	90-110%	
		10.00	**9.71**	**mg/L**	**97%**	**1.1 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-426

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.94	mg/L	98%		9810-174	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.04	mg/L	101%		9810-174	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**2.3 %**				
Method Blank	Method Blank		ND*	mg/L			9810-222	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-222	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9809-375	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.53	mg/L	106%		9809-375	0.5	50-150%	
		0.50	**0.53**	**mg/L**	**106%**	**0.0 %**			50-150%	20%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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City of Greensboro

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Standard	Standard	4.00	3.98	mg/L	100%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.01	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**4.00**	**mg/L**	**100%**	**0.7 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-428

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.84	mg/L	96%		9810-136	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.95	mg/L	99%		9810-136	0.5		
		4.00	**3.89**	**mg/L**	**97%**	**2.6 %**				
Method Blank	Method Blank		ND*	mg/L			9810-242	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-242	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.53	mg/L	106%		9809-375	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	3.95	mg/L	99%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.98	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**3.97**	**mg/L**	**99%**	**0.8 %**			90-110%	10%
Standard	Standard	10.00	9.90	mg/L	99%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.97	mg/L	100%		9810-133	0.5	90-110%	
		10.00	**9.94**	**mg/L**	**99%**	**0.7 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-429

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.92	mg/L	98%		9810-139	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.96	mg/L	99%		9810-139	0.5		
		4.00	**3.94**	**mg/L**	**98%**	**1.0 %**				
Method Blank	Method Blank		ND*	mg/L			9810-252	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-252	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9809-375	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	4.01	mg/L	100%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.00	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**4.00**	**mg/L**	**100%**	**0.3 %**			90-110%	10%
Standard	Standard	10.00	10.04	mg/L	100%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.09	mg/L	101%		9810-133	0.5	90-110%	
		10.00	**10.06**	**mg/L**	**101%**	**0.5 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-430

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.98	mg/L	100%		9810-144	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.00	mg/L	100%		9810-144	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9810-270	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-270	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.95	mg/L	99%		9810-67	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**0.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-431

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.95	mg/L	99%		9810-176	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.99	mg/L	100%		9810-176	0.5		
		4.00	**3.97**	**mg/L**	**99%**	**0.8 %**				
Method Blank	Method Blank		ND*	mg/L			9810-275	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-275	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9809-375	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.99	mg/L	100%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9810-67	0.5	90-110%	
		4.00	**3.97**	**mg/L**	**99%**	**0.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-432

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.02	mg/L	100%		9810-178	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.08	mg/L	102%		9810-178	0.5		
		4.00	**4.05**	**mg/L**	**101%**	**1.5 %**				
Method Blank	Method Blank		ND*	mg/L			9810-281	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-281	0.5		
			ND*	**mg/L**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.50	0.52	mg/L	104%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9809-682	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	4.11	mg/L	103%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9810-67	0.5	90-110%	
		4.00	**4.08**	**mg/L**	**102%**	**1.7 %**			90-110%	10%
Standard	Standard	10.00	10.10	mg/L	101%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.09	mg/L	101%		9810-133	0.5	90-110%	
		10.00	**10.10**	**mg/L**	**101%**	**0.1 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-433

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.10	mg/L	102%		9810-184	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.22	mg/L	105%		9810-184	0.5		
		4.00	**4.16**	**mg/L**	**104%**	**2.9 %**				
Method Blank	Method Blank		ND*	mg/L			9810-300	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-300	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9809-682	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**3.8 %**			50-150%	20%
Standard	Standard	4.00	3.95	mg/L	99%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.92	mg/L	98%		9810-67	0.5	90-110%	
		4.00	**3.93**	**mg/L**	**98%**	**0.8 %**			90-110%	10%
Standard	Standard	10.00	9.49	mg/L	95%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.29	mg/L	93%		9810-133	0.5	90-110%	
		10.00	**9.39**	**mg/L**	**94%**	**2.1 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-434

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.02	mg/L	100%		9810-312	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.05	mg/L	101%		9810-312	0.5		
		4.00	**4.04**	**mg/L**	**101%**	**0.7 %**				
Method Blank	Method Blank		ND*	mg/L			9810-401	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-401	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9809-682	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	4.04	mg/L	101%		9810-67	0.5	90-110%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard (Dupl)	Standard	4.00	4.07	mg/L	102%		9810-67	0.5	90-110%	
		4.00	**4.06**	**mg/L**	**101%**	**0.7 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-435

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.98	mg/L	100%		9810-190	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.00	mg/L	100%		9810-190	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**0.8 %**				
Method Blank	Method Blank		ND*	mg/L			9810-405	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-405	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.51	mg/L	102%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9809-682	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.94	mg/L	98%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.99	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**1.3 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-437

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.93	mg/L	98%		9810-320	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.95	mg/L	99%		9810-320	0.5		
		4.00	**3.94**	**mg/L**	**98%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9810-419	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-419	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9809-682	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.99	mg/L	100%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.99	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**3.99**	**mg/L**	**100%**	**0.0 %**			90-110%	10%
Standard	Standard	10.00	9.89	mg/L	99%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.95	mg/L	99%		9810-133	0.5	90-110%	
		10.00	**9.92**	**mg/L**	**99%**	**0.6 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-438

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Matrix Spike	Matrix Spike	4.00	3.91	mg/L	98%		9810-323	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.92	mg/L	98%		9810-323	0.5		
		4.00	**3.91**	**mg/L**	**98%**	**0.0 %**				
Method Blank	Method Blank		ND*	mg/L			9810-431	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-431	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.50	mg/L	100%		9809-682	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**5.8 %**			50-150%	20%
Standard	Standard	4.00	3.92	mg/L	98%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.90	mg/L	97%		9810-67	0.5	90-110%	
		4.00	**3.91**	**mg/L**	**98%**	**0.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-439

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.83	mg/L	96%		9810-327	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.85	mg/L	96%		9810-327	0.5		
		4.00	**3.84**	**mg/L**	**96%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9810-441	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-441	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.53	mg/L	106%		9809-682	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**5.9 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.00	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**0.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-440

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.19	mg/L	105%		9810-329	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.23	mg/L	106%		9810-329	0.5		
		4.00	**4.21**	**mg/L**	**105%**	**0.7 %**				
Method Blank	Method Blank		ND*	mg/L			9810-453	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-453	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.50	mg/L	100%		9809-682	0.5	50-150%	
		0.50	**0.50**	**mg/L**	**100%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	4.07	mg/L	102%		9810-67	0.5	90-110%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard (Dupl)	Standard	4.00	4.12	mg/L	103%		9810-67	0.5	90-110%	
		4.00	**4.10**	**mg/L**	**102%**	**1.2 %**			90-110%	10%
Standard	Standard	10.00	10.32	mg/L	103%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.37	mg/L	104%		9810-133	0.5	90-110%	
		10.00	**10.34**	**mg/L**	**103%**	**0.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-441

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.03	mg/L	101%		9810-360	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.02	mg/L	100%		9810-360	0.5		
		4.00	**4.03**	**mg/L**	**101%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9810-460	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-460	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9809-682	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9809-682	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	3.95	mg/L	99%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9810-67	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**0.3 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-443

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.00	mg/L	100%		9810-335	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.06	mg/L	101%		9810-335	0.5		
		4.00	**4.03**	**mg/L**	**101%**	**1.5 %**				
Method Blank	Method Blank		ND*	mg/L			9810-465	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-465	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9810-241	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9810-241	0.5	50-150%	
		0.50	**0.53**	**mg/L**	**106%**	**3.8 %**			50-150%	20%
Standard	Standard	4.00	4.02	mg/L	100%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.05	mg/L	101%		9810-67	0.5	90-110%	
		4.00	**4.04**	**mg/L**	**101%**	**0.7 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-444

QC Type	Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Matrix Spike	Matrix Spike	4.00	3.97	mg/L	99%		9810-397	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.93	mg/L	98%		9810-397	0.5		
		4.00	**3.95**	**mg/L**	**99%**	**1.0 %**				
Method Blank	Method Blank		ND*	mg/L			9810-492	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-492	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.54	mg/L	108%		9810-241	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9810-241	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.98	mg/L	100%		9810-67	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.01	mg/L	100%		9810-67	0.5	90-110%	
		4.00	**3.99**	**mg/L**	**100%**	**0.8 %**			90-110%	10%
Standard	Standard	10.00	9.81	mg/L	98%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.99	mg/L	100%		9810-133	0.5	90-110%	
		10.00	**9.90**	**mg/L**	**99%**	**1.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-446

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.05	mg/L	101%		9810-372	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.10	mg/L	102%		9810-372	0.5		
		4.00	**4.07**	**mg/L**	**102%**	**1.5 %**				
Method Blank	Method Blank		ND*	mg/L			9810-513	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9810-513	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.55	mg/L	110%		9810-241	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.54	mg/L	108%		9810-241	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	4.01	mg/L	100%		9810-493	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9810-493	0.5	90-110%	
		4.00	**4.03**	**mg/L**	**101%**	**0.7 %**			90-110%	10%
Standard	Standard	10.00	10.13	mg/L	101%		9810-133	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.12	mg/L	101%		9810-133	0.5	90-110%	
		10.00	**10.13**	**mg/L**	**101%**	**0.1 %**			90-110%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-320

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Method Blank	Method Blank		ND*	1/cm			9810-233	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-233	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-233	0.009		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-233	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9809-681	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9809-681	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9810-76	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.083	1/cm	94%		9810-76	0.009	85-115%	
		0.088	**0.083**	**1/cm**	**94%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-324

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9810-257	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-257	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-257	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-257	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-325

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9810-265	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-265	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-265	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-265	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9810-239	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**14.3 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9810-76	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**1.2 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-326

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-280	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-280	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-280	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-280	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9810-239	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-327

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-290	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-290	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-290	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-290	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-328

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-311	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-311	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-311	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-311	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-329

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9810-404	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-404	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-404	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-404	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-76	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-330

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9810-406	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-406	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-406	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-406	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-333

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-418	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-418	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-418	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-418	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9810-239	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.083	1/cm	94%		9810-407	0.009	85-115%	
		0.088	**0.083**	**1/cm**	**94%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-334

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-430	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-430	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-430	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-430	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9810-239	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-335

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-440	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-440	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-440	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-440	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-336

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9810-458	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-458	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-458	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-458	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-239	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-338

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9810-463	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-463	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-463	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-463	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9810-461	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-461	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-339

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-474	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-474	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-474	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-474	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9810-461	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-461	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.085	1/cm	97%		9810-407	0.009	85-115%	
		0.088	**0.085**	**1/cm**	**97%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-341

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-508	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-508	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-508	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-508	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9810-461	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-461	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**14.3 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-342

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9810-519	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-519	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9810-519	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9810-519	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.008	1/cm	89%		9810-461	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9810-461	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9810-407	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: TURB (Turbidity) **Method:** SM 2130 B

QC Batch ID: 9-0-18

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard	Standard	5.41	5.48	ntu	101%		09/28/98	9807-108	0.05		
Standard	Standard	5.41	5.59	ntu	103%		09/28/98	9807-108	0.05		
Standard	Standard	5.41	5.48	ntu	101%		09/30/98	9807-108	0.05		
Standard	Standard	5.41	5.50	ntu	102%		10/01/98	9807-108	0.05		
Standard	Standard	5.41	5.52	ntu	102%		10/04/98	9807-108	0.05		
Standard	Standard	5.41	5.53	ntu	102%		10/06/98	9807-108	0.05		
Standard	Standard	5.41	5.48	ntu	101%		10/08/98	9807-108	0.05		
Standard	Standard	5.41	5.48	ntu	101%		10/14/98	9807-108	0.05		
Standard	Standard	5.41	5.51	ntu	102%		10/16/98	9807-108	0.05		
Standard	Standard	5.41	5.54	ntu	102%		10/16/98	9807-108	0.05		

Analysis: TURB (Turbidity) **Method:** SM 2130 B

QC Batch ID: 9-0-19

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard	Standard	5.41	5.54	ntu	102%		10/20/98	9807-108	0.05		
Standard	Standard	5.41	5.56	ntu	103%		10/26/98	9807-108	0.05		
Standard	Standard	5.41	5.49	ntu	101%		10/27/98	9807-108	0.05		
Standard	Standard	5.41	5.48	ntu	101%		10/27/98	9807-108	0.05		
Standard	Standard	5.41	5.49	ntu	101%		10/29/98	9807-108	0.05		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-229

QC Type		Spike	Recovery	Unit	Yield	RPD		S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	200	194	µg Cl-/L	97%			9809-535	25		
Matrix Spike (Dupl)	Matrix Spike	200	194	µg Cl-/L	97%			9809-535	25		
		200	**194**	**µg Cl-/L**	**97%**	**0.0 %**					
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%			9810-426	25	75-125%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Study Title: ICR RSSCT #3

Standard - TCP Aqueous	Standard	200	190	µg Cl-/L	95%		9810-425	25	85-115%
System Blank	Blank		ND*	µg Cl-/L			9810-427	25	

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-230

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9810-438	25	75-125%	
Standard - TCP Aqueous	Standard	200	202	µg Cl-/L	101%		9810-437	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9810-439	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-231

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	200	217	µg Cl-/L	109%		9810-145	25		
Matrix Spike (Dupl)	Matrix Spike	200	189	µg Cl-/L	94%		9810-145	25		
		200	**203**	**µg Cl-/L**	**101%**	**13.3 %**				
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9810-447	25	75-125%	
Standard - TCP Aqueous	Standard	200	222	µg Cl-/L	111%		9810-446	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9810-448	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-232

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9810-451	25	75-125%	
Standard - TCP Aqueous	Standard	200	181	µg Cl-/L	91%		9810-450	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9810-452	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-233

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9810-472	25	75-125%	
Standard - TCP Aqueous	Standard	200	195	µg Cl-/L	97%		9810-471	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9810-473	25		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Mr. Doug Robbins
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Study Title: ICR RSSCT #3

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-234

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	198	µg Cl-/L	99%		9810-317	25		
Matrix Spike (Dupl)	Matrix Spike	200	195	µg Cl-/L	97%		9810-317	25		
		200	**196**	**µg Cl-/L**	**98%**	**1.5 %**				
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9810-496	25	75-125%	
Standard - TCP Aqueous	Standard	200	195	µg Cl-/L	97%		9810-495	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9810-497	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-235

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9810-511	25	75-125%	
Standard - TCP Aqueous	Standard	200	200	µg Cl-/L	100%		9810-510	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9810-512	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-237

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	200	µg Cl-/L	100%		9810-203	25		
Matrix Spike (Dupl)	Matrix Spike	200	193	µg Cl-/L	96%		9810-203	25		
		200	**196**	**µg Cl-/L**	**98%**	**3.6 %**				
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9810-522	25	75-125%	
Standard - TCP Aqueous	Standard	200	194	µg Cl-/L	97%		9810-521	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9810-523	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-239

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	194	µg Cl-/L	97%		9810-372	25		
Matrix Spike (Dupl)	Matrix Spike	200	194	µg Cl-/L	97%		9810-372	25		
		200	**194**	**µg Cl-/L**	**97%**	**0.0 %**				
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9811-31	25	75-125%	
Standard - TCP Aqueous	Standard	200	190	µg Cl-/L	95%		9811-30	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9811-32	25		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Study Title: ICR RSSCT #3

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-243-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	15.4	14.6	µg/L		5.3%	9809-769	1		
Bromodichloromethane	Matrix Spike	40.0	41.4	µg/L	103%		9810-99	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9810-409	1		
Bromodichloromethane	Secondary Source Std	20.0	22.2	µg/L	111%		9810-410	1	70-130%	
Bromodichloromethane	Standard	20.0	19.2	µg/L	96%		9810-411	1	80-120%	
Bromodichloromethane	Standard	20.0	19.9	µg/L	99%		9810-411	1	80-120%	
Bromodichloromethane	Standard	40.0	40.2	µg/L	101%		9810-412	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9809-769	1		
Bromoform	Matrix Spike	40.0	43.4	µg/L	109%		9810-99	1		
Bromoform	Method Blank		ND*	µg/L			9810-409	1		
Bromoform	Secondary Source Std	20.0	20.2	µg/L	101%		9810-410	1	70-130%	
Bromoform	Standard	20.0	19.6	µg/L	98%		9810-411	1	80-120%	
Bromoform	Standard	20.0	19.7	µg/L	98%		9810-411	1	80-120%	
Bromoform	Standard	40.0	42.4	µg/L	106%		9810-412	1	80-120%	
Chloroform	Duplicate	50.5	47.5	µg/L		6.1%	9809-769	1		
Chloroform	Matrix Spike	40.0	42.5	µg/L	106%		9810-99	1		
Chloroform	Method Blank		ND*	µg/L			9810-409	1		
Chloroform	Secondary Source Std	20.0	22.4	µg/L	112%		9810-410	1	70-130%	
Chloroform	Standard	20.0	18.6	µg/L	93%		9810-411	1	80-120%	
Chloroform	Standard	20.0	19.8	µg/L	99%		9810-411	1	80-120%	
Chloroform	Standard	40.0	40.5	µg/L	101%		9810-412	1	80-120%	
Dibromochloromethane	Duplicate	2.1	2.1	µg/L		0.0%	9809-769	1		
Dibromochloromethane	Matrix Spike	40.0	42.6	µg/L	106%		9810-99	1		
Dibromochloromethane	Method Blank		ND*	µg/L			9810-409	1		
Dibromochloromethane	Secondary Source Std	20.0	21.2	µg/L	106%		9810-410	1	70-130%	
Dibromochloromethane	Standard	20.0	19.8	µg/L	99%		9810-411	1	80-120%	
Dibromochloromethane	Standard	20.0	20.1	µg/L	101%		9810-411	1	80-120%	
Dibromochloromethane	Standard	40.0	41.4	µg/L	103%		9810-412	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-246-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	22.1	19.6	µg/L		12.0%	9810-17	1		
Bromodichloromethane	Matrix Spike	40.0	41.1	µg/L	103%		9810-166	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9810-432	1		
Bromodichloromethane	Secondary Source Std	20.0	20.6	µg/L	103%		9810-433	1	70-130%	
Bromodichloromethane	Standard	20.0	20.6	µg/L	103%		9810-434	1	80-120%	
Bromodichloromethane	Standard	20.0	20.8	µg/L	104%		9810-434	1	80-120%	
Bromodichloromethane	Standard	40.0	40.2	µg/L	101%		9810-435	1	80-120%	
Bromoform	Duplicate	9.3	8.6	µg/L		7.8%	9810-17	1		
Bromoform	Matrix Spike	40.0	41.7	µg/L	104%		9810-166	1		
Bromoform	Method Blank		ND*	µg/L			9810-432	1		
Bromoform	Secondary Source Std	20.0	18.2	µg/L	91%		9810-433	1	70-130%	
Bromoform	Standard	20.0	20.6	µg/L	103%		9810-434	1	80-120%	
Bromoform	Standard	20.0	20.5	µg/L	102%		9810-434	1	80-120%	
Bromoform	Standard	40.0	37.6	µg/L	94%		9810-435	1	80-120%	
Chloroform	Duplicate	12.9	11.6	µg/L		10.6%	9810-17	1		
Chloroform	Matrix Spike	40.0	43.1	µg/L	108%		9810-166	1		
Chloroform	Method Blank		ND*	µg/L			9810-432	1		
Chloroform	Secondary Source Std	20.0	21.0	µg/L	105%		9810-433	1	70-130%	
Chloroform	Standard	20.0	19.8	µg/L	99%		9810-434	1	80-120%	
Chloroform	Standard	20.0	20.2	µg/L	101%		9810-434	1	80-120%	
Chloroform	Standard	40.0	41.2	µg/L	103%		9810-435	1	80-120%	
Dibromochloromethane	Duplicate	25.7	22.4	µg/L		13.7%	9810-17	1		
Dibromochloromethane	Matrix Spike	40.0	43.2	µg/L	108%		9810-166	1		
Dibromochloromethane	Method Blank		ND*	µg/L			9810-432	1		
Dibromochloromethane	Secondary Source Std	20.0	19.8	µg/L	99%		9810-433	1	70-130%	
Dibromochloromethane	Standard	20.0	20.6	µg/L	103%		9810-434	1	80-120%	
Dibromochloromethane	Standard	20.0	21.2	µg/L	106%		9810-434	1	80-120%	
Dibromochloromethane	Standard	40.0	40.3	µg/L	101%		9810-435	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-249-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	5.4	5.3	µg/L		1.9%	9810-194	1		
Bromodichloromethane	Matrix Spike	40.0	41.5	µg/L	104%		9810-352	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9810-466	1		
Bromodichloromethane	Secondary Source Std	20.0	22.5	µg/L	113%		9810-467	1	70-130%	
Bromodichloromethane	Standard	20.0	19.8	µg/L	99%		9810-468	1	80-120%	
Bromodichloromethane	Standard	20.0	19.6	µg/L	98%		9810-468	1	80-120%	
Bromodichloromethane	Standard	40.0	40.7	µg/L	102%		9810-469	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9810-194	1		
Bromoform	Matrix Spike	40.0	42.3	µg/L	106%		9810-352	1		
Bromoform	Method Blank		ND*	µg/L			9810-466	1		
Bromoform	Secondary Source Std	20.0	20.9	µg/L	104%		9810-467	1	70-130%	
Bromoform	Standard	20.0	19.5	µg/L	97%		9810-468	1	80-120%	
Bromoform	Standard	20.0	20.1	µg/L	101%		9810-468	1	80-120%	
Bromoform	Standard	40.0	41.4	µg/L	103%		9810-469	1	80-120%	
Chloroform	Duplicate	5.5	5.4	µg/L		1.8%	9810-194	1		
Chloroform	Matrix Spike	40.0	42.5	µg/L	106%		9810-352	1		
Chloroform	Method Blank		ND*	µg/L			9810-466	1		
Chloroform	Secondary Source Std	20.0	22.5	µg/L	113%		9810-467	1	70-130%	
Chloroform	Standard	20.0	19.2	µg/L	96%		9810-468	1	80-120%	
Chloroform	Standard	20.0	18.9	µg/L	94%		9810-468	1	80-120%	
Chloroform	Standard	40.0	41.3	µg/L	103%		9810-469	1	80-120%	
Dibromochloromethane	Duplicate	3.0	3.1	µg/L		3.3%	9810-194	1		
Dibromochloromethane	Matrix Spike	40.0	42.3	µg/L	106%		9810-352	1		
Dibromochloromethane	Method Blank		ND*	µg/L			9810-466	1		
Dibromochloromethane	Secondary Source Std	20.0	21.1	µg/L	106%		9810-467	1	70-130%	
Dibromochloromethane	Standard	20.0	20.2	µg/L	101%		9810-468	1	80-120%	
Dibromochloromethane	Standard	20.0	19.9	µg/L	99%		9810-468	1	80-120%	
Dibromochloromethane	Standard	40.0	41.3	µg/L	103%		9810-469	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-257-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	23.9	24.2	µg/L		1.2%	9810-328	1		
Bromodichloromethane	Matrix Spike	40.0	42.1	µg/L	105%		9810-203	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9811-4	1		
Bromodichloromethane	Secondary Source Std	20.0	23.9	µg/L	119%		9811-5	1	70-130%	
Bromodichloromethane	Standard	20.0	20.9	µg/L	104%		9811-6	1	80-120%	
Bromodichloromethane	Standard	20.0	20.6	µg/L	103%		9811-6	1	80-120%	
Bromodichloromethane	Standard	40.0	38.8	µg/L	97%		9811-7	1	80-120%	
Bromoform	Duplicate	11.8	11.8	µg/L		0.0%	9810-328	1		
Bromoform	Matrix Spike	40.0	44.3	µg/L	111%		9810-203	1		
Bromoform	Method Blank		ND*	µg/L			9811-4	1		
Bromoform	Secondary Source Std	20.0	21.1	µg/L	106%		9811-5	1	70-130%	
Bromoform	Standard	20.0	21.2	µg/L	106%		9811-6	1	80-120%	
Bromoform	Standard	20.0	20.4	µg/L	102%		9811-6	1	80-120%	
Bromoform	Standard	40.0	39.2	µg/L	98%		9811-7	1	80-120%	
Chloroform	Duplicate	11.6	11.7	µg/L		0.9%	9810-328	1		
Chloroform	Matrix Spike	40.0	44.1	µg/L	110%		9810-203	1		
Chloroform	Method Blank		ND*	µg/L			9811-4	1		
Chloroform	Secondary Source Std	20.0	23.9	µg/L	119%		9811-5	1	70-130%	
Chloroform	Standard	20.0	20.5	µg/L	102%		9811-6	1	80-120%	
Chloroform	Standard	20.0	20.6	µg/L	103%		9811-6	1	80-120%	
Chloroform	Standard	40.0	39.9	µg/L	100%		9811-7	1	80-120%	
Dibromochloromethane	Duplicate	32.1	33.5	µg/L		4.3%	9810-328	1		
Dibromochloromethane	Matrix Spike	40.0	43.4	µg/L	109%		9810-203	1		
Dibromochloromethane	Method Blank		ND*	µg/L			9811-4	1		
Dibromochloromethane	Secondary Source Std	20.0	22.5	µg/L	113%		9811-5	1	70-130%	
Dibromochloromethane	Standard	20.0	21.5	µg/L	108%		9811-6	1	80-120%	
Dibromochloromethane	Standard	20.0	21.4	µg/L	107%		9811-6	1	80-120%	
Dibromochloromethane	Standard	40.0	40.0	µg/L	100%		9811-7	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-261-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	15.3	16.6	µg/L		8.2%	9810-370	1		
Bromodichloromethane	Matrix Spike	40.0	37.5	µg/L	94%		9810-477	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9811-129	1		
Bromodichloromethane	Secondary Source Std	20.0	24.5	µg/L	123%		9811-130	1	70-130%	
Bromodichloromethane	Standard	20.0	21.9	µg/L	110%		9811-131	1	80-120%	
Bromodichloromethane	Standard	40.0	39.1	µg/L	98%		9811-132	1	80-120%	
Bromoform	Duplicate	12.9	13.7	µg/L		6.0%	9810-370	1		
Bromoform	Matrix Spike	40.0	42.5	µg/L	106%		9810-477	1		
Bromoform	Method Blank		ND*	µg/L			9811-129	1		
Bromoform	Secondary Source Std	20.0	19.4	µg/L	97%		9811-130	1	70-130%	
Bromoform	Standard	20.0	20.9	µg/L	104%		9811-131	1	80-120%	
Bromoform	Standard	40.0	37.6	µg/L	94%		9811-132	1	80-120%	
Chloroform	Duplicate	6.0	6.8	µg/L		12.5%	9810-370	1		
Chloroform	Matrix Spike	40.0	38.9	µg/L	97%		9810-477	1		
Chloroform	Method Blank		ND*	µg/L			9811-129	1		
Chloroform	Secondary Source Std	20.0	23.3	µg/L	117%		9811-130	1	70-130%	
Chloroform	Standard	20.0	23.5	µg/L	118%		9811-131	1	80-120%	
Chloroform	Standard	40.0	39.0	µg/L	97%		9811-132	1	80-120%	
Dibromochloromethane	Duplicate	24.7	25.7	µg/L		4.0%	9810-370	1		
Dibromochloromethane	Matrix Spike	40.0	37.7	µg/L	94%		9810-477	1		
Dibromochloromethane	Method Blank		ND*	µg/L			9811-129	1		
Dibromochloromethane	Secondary Source Std	20.0	22.3	µg/L	112%		9811-130	1	70-130%	
Dibromochloromethane	Standard	20.0	23.0	µg/L	115%		9811-131	1	80-120%	
Dibromochloromethane	Standard	40.0	44.4	µg/L	111%		9811-132	1	80-120%	

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-247-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromochloroacetic acid	Duplicate	3.1	3.0	µg/L		3.3%	9810-216	1		
Bromochloroacetic acid	Matrix Spike	40.0	39.9	µg/L	100%		9810-17	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Bromochloroacetic acid	Method Blank		ND* µg/L			9810-420	1	
Bromochloroacetic acid	Secondary Source Std	20.0	21.4 µg/L	107%		9810-421	1	70-130%
Bromochloroacetic acid	Standard	20.0	19.6 µg/L	98%		9810-422	1	80-120%
Bromochloroacetic acid	Standard	20.0	19.6 µg/L	98%		9810-422	1	80-120%
Bromochloroacetic acid	Standard	40.0	40.4 µg/L	101%		9810-423	1	80-120%
Bromodichloroacetic acid	Duplicate	3.3	2.9 µg/L		12.9%	9810-216	1	
Bromodichloroacetic acid	Matrix Spike	40.0	45.7 µg/L	114%		9810-17	1	
Bromodichloroacetic acid	Method Blank		ND* µg/L			9810-420	1	
Bromodichloroacetic acid	Secondary Source Std		ND µg/L			9810-421	1	70-130%
Bromodichloroacetic acid	Standard	20.0	18.1 µg/L	91%		9810-422	1	80-120%
Bromodichloroacetic acid	Standard	20.0	17.2 µg/L	86%		9810-422	1	80-120%
Bromodichloroacetic acid	Standard	40.0	41.1 µg/L	103%		9810-423	1	80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND µg/L		NA	9810-216	2	
Chlorodibromoacetic acid	Matrix Spike	40.0	43.7 µg/L	109%		9810-17	2	
Chlorodibromoacetic acid	Method Blank		ND* µg/L			9810-420	2	
Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9810-421	2	70-130%
Chlorodibromoacetic acid	Standard	20.0	17.2 µg/L	86%		9810-422	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	16.0 µg/L	80%		9810-422	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	41.1 µg/L	103%		9810-423	2	80-120%
Dibromoacetic acid	Duplicate	ND	ND µg/L		NA	9810-216	1	
Dibromoacetic acid	Matrix Spike	40.0	40.3 µg/L	101%		9810-17	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9810-420	1	
Dibromoacetic acid	Secondary Source Std	20.0	22.2 µg/L	111%		9810-421	1	70-130%
Dibromoacetic acid	Standard	20.0	19.4 µg/L	97%		9810-422	1	80-120%
Dibromoacetic acid	Standard	20.0	19.2 µg/L	96%		9810-422	1	80-120%
Dibromoacetic acid	Standard	40.0	40.4 µg/L	101%		9810-423	1	80-120%
Dichloroacetic acid	Duplicate	11.5	11.3 µg/L		1.8%	9810-216	1	
Dichloroacetic acid	Matrix Spike	40.0	39.0 µg/L	97%		9810-17	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9810-420	1	
Dichloroacetic acid	Secondary Source Std	20.0	22.2 µg/L	111%		9810-421	1	70-130%
Dichloroacetic acid	Standard	20.0	19.4 µg/L	97%		9810-422	1	80-120%
Dichloroacetic acid	Standard	20.0	19.8 µg/L	99%		9810-422	1	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Dichloroacetic acid	Standard	40.0	38.9	µg/L	97%		9810-423	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND	µg/L		NA	9810-216	1	
Monobromoacetic acid	Matrix Spike	40.0	39.8	µg/L	99%		9810-17	1	
Monobromoacetic acid	Method Blank		ND*	µg/L			9810-420	1	
Monobromoacetic acid	Secondary Source Std	20.0	22.8	µg/L	114%		9810-421	1	70-130%
Monobromoacetic acid	Standard	20.0	20.4	µg/L	102%		9810-422	1	80-120%
Monobromoacetic acid	Standard	20.0	20.5	µg/L	102%		9810-422	1	80-120%
Monobromoacetic acid	Standard	40.0	39.5	µg/L	99%		9810-423	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND	µg/L		NA	9810-216	2	
Monochloroacetic acid	Matrix Spike	40.0	38.5	µg/L	96%		9810-17	2	
Monochloroacetic acid	Method Blank		ND*	µg/L			9810-420	2	
Monochloroacetic acid	Secondary Source Std	20.0	22.9	µg/L	115%		9810-421	2	70-130%
Monochloroacetic acid	Standard	20.0	21.6	µg/L	108%		9810-422	2	80-120%
Monochloroacetic acid	Standard	20.0	19.9	µg/L	99%		9810-422	2	80-120%
Monochloroacetic acid	Standard	40.0	39.5	µg/L	99%		9810-423	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND	µg/L		NA	9810-216	4	
Tribromoacetic acid	Matrix Spike	40.0	44.0	µg/L	110%		9810-17	4	
Tribromoacetic acid	Method Blank		ND*	µg/L			9810-420	4	
Tribromoacetic acid	Secondary Source Std		ND	µg/L			9810-421	4	70-130%
Tribromoacetic acid	Standard	20.0	17.7	µg/L	89%		9810-422	4	80-120%
Tribromoacetic acid	Standard	20.0	16.0	µg/L	80%		9810-422	4	80-120%
Tribromoacetic acid	Standard	40.0	40.5	µg/L	101%		9810-423	4	80-120%
Trichloroacetic acid	Duplicate	12.8	11.5	µg/L		10.7%	9810-216	1	
Trichloroacetic acid	Matrix Spike	40.0	44.0	µg/L	110%		9810-17	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9810-420	1	
Trichloroacetic acid	Secondary Source Std	20.0	22.8	µg/L	114%		9810-421	1	70-130%
Trichloroacetic acid	Standard	20.0	19.1	µg/L	96%		9810-422	1	80-120%
Trichloroacetic acid	Standard	20.0	19.0	µg/L	95%		9810-422	1	80-120%
Trichloroacetic acid	Standard	40.0	40.6	µg/L	102%		9810-423	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-248-0

QC Type	Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Bromochloroacetic acid	Duplicate	ND	ND	µg/L		NA	9810-182	1
Bromochloroacetic acid	Matrix Spike	40.0	37.8	µg/L	94%		9810-294	1
Bromochloroacetic acid	Method Blank		ND*	µg/L			9810-454	1
Bromochloroacetic acid	Secondary Source Std	20.0	19.1	µg/L	96%		9810-455	1 70-130%
Bromochloroacetic acid	Standard	20.0	20.3	µg/L	102%		9810-456	1 80-120%
Bromochloroacetic acid	Standard	20.0	20.3	µg/L	102%		9810-456	1 80-120%
Bromochloroacetic acid	Standard	40.0	40.0	µg/L	100%		9810-457	1 80-120%
Bromodichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9810-182	1
Bromodichloroacetic acid	Matrix Spike	40.0	36.9	µg/L	92%		9810-294	1
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9810-454	1
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9810-455	1 70-130%
Bromodichloroacetic acid	Standard	20.0	23.7	µg/L	119%		9810-456	1 80-120%
Bromodichloroacetic acid	Standard	20.0	23.3	µg/L	117%		9810-456	1 80-120%
Bromodichloroacetic acid	Standard	40.0	39.9	µg/L	100%		9810-457	1 80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9810-182	2
Chlorodibromoacetic acid	Matrix Spike	40.0	36.6	µg/L	92%		9810-294	2
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9810-454	2
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9810-455	2 70-130%
Chlorodibromoacetic acid	Standard	20.0	23.7	µg/L	119%		9810-456	2 80-120%
Chlorodibromoacetic acid	Standard	20.0	23.5	µg/L	118%		9810-456	2 80-120%
Chlorodibromoacetic acid	Standard	40.0	40.9	µg/L	102%		9810-457	2 80-120%
Dibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9810-182	1
Dibromoacetic acid	Matrix Spike	40.0	37.3	µg/L	93%		9810-294	1
Dibromoacetic acid	Method Blank		ND*	µg/L			9810-454	1
Dibromoacetic acid	Secondary Source Std	20.0	19.4	µg/L	97%		9810-455	1 70-130%
Dibromoacetic acid	Standard	20.0	21.2	µg/L	106%		9810-456	1 80-120%
Dibromoacetic acid	Standard	20.0	21.0	µg/L	105%		9810-456	1 80-120%
Dibromoacetic acid	Standard	40.0	39.5	µg/L	99%		9810-457	1 80-120%
Dichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9810-182	1
Dichloroacetic acid	Matrix Spike	40.0	38.4	µg/L	96%		9810-294	1
Dichloroacetic acid	Method Blank		ND*	µg/L			9810-454	1
Dichloroacetic acid	Secondary Source Std	20.0	20.2	µg/L	101%		9810-455	1 70-130%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Dichloroacetic acid	Standard	20.0	19.6 µg/L	98%		9810-456	1	80-120%
Dichloroacetic acid	Standard	20.0	19.9 µg/L	99%		9810-456	1	80-120%
Dichloroacetic acid	Standard	40.0	39.7 µg/L	99%		9810-457	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9810-182	1	
Monobromoacetic acid	Matrix Spike	40.0	39.5 µg/L	99%		9810-294	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9810-454	1	
Monobromoacetic acid	Secondary Source Std	20.0	19.2 µg/L	96%		9810-455	1	70-130%
Monobromoacetic acid	Standard	20.0	18.4 µg/L	92%		9810-456	1	80-120%
Monobromoacetic acid	Standard	20.0	18.3 µg/L	92%		9810-456	1	80-120%
Monobromoacetic acid	Standard	40.0	40.7 µg/L	102%		9810-457	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9810-182	2	
Monochloroacetic acid	Matrix Spike	40.0	37.4 µg/L	93%		9810-294	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9810-454	2	
Monochloroacetic acid	Secondary Source Std	20.0	17.7 µg/L	89%		9810-455	2	70-130%
Monochloroacetic acid	Standard	20.0	18.5 µg/L	93%		9810-456	2	80-120%
Monochloroacetic acid	Standard	20.0	17.7 µg/L	89%		9810-456	2	80-120%
Monochloroacetic acid	Standard	40.0	37.1 µg/L	93%		9810-457	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9810-182	4	
Tribromoacetic acid	Matrix Spike	40.0	37.5 µg/L	94%		9810-294	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9810-454	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9810-455	4	70-130%
Tribromoacetic acid	Standard	20.0	23.6 µg/L	118%		9810-456	4	80-120%
Tribromoacetic acid	Standard	20.0	23.1 µg/L	116%		9810-456	4	80-120%
Tribromoacetic acid	Standard	40.0	41.3 µg/L	103%		9810-457	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND µg/L		NA	9810-182	1	
Trichloroacetic acid	Matrix Spike	40.0	35.9 µg/L	90%		9810-294	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9810-454	1	
Trichloroacetic acid	Secondary Source Std	20.0	19.2 µg/L	96%		9810-455	1	70-130%
Trichloroacetic acid	Standard	20.0	22.9 µg/L	115%		9810-456	1	80-120%
Trichloroacetic acid	Standard	20.0	22.8 µg/L	114%		9810-456	1	80-120%
Trichloroacetic acid	Standard	40.0	38.2 µg/L	96%		9810-457	1	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-255-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromochloroacetic acid	Duplicate	2.8	2.4	µg/L		15.4%	9810-320	1		
Bromochloroacetic acid	Matrix Spike	40.0	35.9	µg/L	90%		9810-328	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9810-504	1		
Bromochloroacetic acid	Secondary Source Std	20.0	19.7	µg/L	98%		9810-505	1	70-130%	
Bromochloroacetic acid	Standard	20.0	21.7	µg/L	109%		9810-506	1	80-120%	
Bromochloroacetic acid	Standard	20.0	21.2	µg/L	106%		9810-506	1	80-120%	
Bromochloroacetic acid	Standard	40.0	39.4	µg/L	98%		9810-507	1	80-120%	
Bromodichloroacetic acid	Duplicate	1.2	1.1	µg/L		8.7%	9810-320	1		
Bromodichloroacetic acid	Matrix Spike	40.0	32.5	µg/L	81%		9810-328	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9810-504	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9810-505	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	20.6	µg/L	103%		9810-506	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	21.9	µg/L	110%		9810-506	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	38.7	µg/L	97%		9810-507	1	80-120%	
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9810-320	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	32.1	µg/L	80%		9810-328	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9810-504	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9810-505	2	70-130%	
Chlorodibromoacetic acid	Standard	20.0	19.9	µg/L	99%		9810-506	2	80-120%	
Chlorodibromoacetic acid	Standard	20.0	22.1	µg/L	111%		9810-506	2	80-120%	
Chlorodibromoacetic acid	Standard	40.0	37.7	µg/L	94%		9810-507	2	80-120%	
Dibromoacetic acid	Duplicate	4.4	3.8	µg/L		14.6%	9810-320	1		
Dibromoacetic acid	Matrix Spike	40.0	33.4	µg/L	83%		9810-328	1		
Dibromoacetic acid	Method Blank		ND*	µg/L			9810-504	1		
Dibromoacetic acid	Secondary Source Std	20.0	20.1	µg/L	101%		9810-505	1	70-130%	
Dibromoacetic acid	Standard	20.0	22.4	µg/L	112%		9810-506	1	80-120%	
Dibromoacetic acid	Standard	20.0	21.3	µg/L	106%		9810-506	1	80-120%	
Dibromoacetic acid	Standard	40.0	39.5	µg/L	99%		9810-507	1	80-120%	
Dichloroacetic acid	Duplicate	1.2	1.3	µg/L		8.0%	9810-320	1		
Dichloroacetic acid	Matrix Spike	40.0	36.3	µg/L	91%		9810-328	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Dichloroacetic acid	Method Blank		ND* µg/L			9810-504	1	
Dichloroacetic acid	Secondary Source Std	20.0	21.0 µg/L	105%		9810-505	1	70-130%
Dichloroacetic acid	Standard	20.0	22.7 µg/L	114%		9810-506	1	80-120%
Dichloroacetic acid	Standard	20.0	20.7 µg/L	103%		9810-506	1	80-120%
Dichloroacetic acid	Standard	40.0	39.3 µg/L	98%		9810-507	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9810-320	1	
Monobromoacetic acid	Matrix Spike	40.0	41.6 µg/L	104%		9810-328	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9810-504	1	
Monobromoacetic acid	Secondary Source Std	20.0	20.1 µg/L	101%		9810-505	1	70-130%
Monobromoacetic acid	Standard	20.0	20.6 µg/L	103%		9810-506	1	80-120%
Monobromoacetic acid	Standard	20.0	20.3 µg/L	102%		9810-506	1	80-120%
Monobromoacetic acid	Standard	40.0	39.3 µg/L	98%		9810-507	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9810-320	2	
Monochloroacetic acid	Matrix Spike	40.0	42.4 µg/L	106%		9810-328	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9810-504	2	
Monochloroacetic acid	Secondary Source Std	20.0	22.3 µg/L	112%		9810-505	2	70-130%
Monochloroacetic acid	Standard	20.0	21.9 µg/L	110%		9810-506	2	80-120%
Monochloroacetic acid	Standard	20.0	21.0 µg/L	105%		9810-506	2	80-120%
Monochloroacetic acid	Standard	40.0	39.4 µg/L	98%		9810-507	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9810-320	4	
Tribromoacetic acid	Matrix Spike	40.0	30.3 µg/L	76%		9810-328	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9810-504	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9810-505	4	70-130%
Tribromoacetic acid	Standard	20.0	19.3 µg/L	97%		9810-506	4	80-120%
Tribromoacetic acid	Standard	20.0	21.0 µg/L	105%		9810-506	4	80-120%
Tribromoacetic acid	Standard	40.0	36.9 µg/L	92%		9810-507	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND µg/L		NA	9810-320	1	
Trichloroacetic acid	Matrix Spike	40.0	31.9 µg/L	80%		9810-328	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9810-504	1	
Trichloroacetic acid	Secondary Source Std	20.0	20.9 µg/L	104%		9810-505	1	70-130%
Trichloroacetic acid	Standard	20.0	21.6 µg/L	108%		9810-506	1	80-120%
Trichloroacetic acid	Standard	20.0	21.7 µg/L	109%		9810-506	1	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Trichloroacetic acid	Standard	40.0	39.0	µg/L	97%		9810-507	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-260-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromochloroacetic acid	Duplicate	5.4	4.1	µg/L		27.4%	9810-368	1		
Bromochloroacetic acid	Matrix Spike	40.0	46.2	µg/L	116%		9810-386	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9811-23	1		
Bromochloroacetic acid	Secondary Source Std	20.0	21.3	µg/L	106%		9811-24	1	70-130%	
Bromochloroacetic acid	Standard	20.0	20.9	µg/L	104%		9811-25	1	80-120%	
Bromochloroacetic acid	Standard	20.0	20.8	µg/L	104%		9811-25	1	80-120%	
Bromochloroacetic acid	Standard	40.0	39.5	µg/L	99%		9811-26	1	80-120%	
Bromodichloroacetic acid	Duplicate	1.8	1.6	µg/L		11.8%	9810-368	1		
Bromodichloroacetic acid	Matrix Spike	40.0	45.3	µg/L	113%		9810-386	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9811-23	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9811-24	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	21.2	µg/L	106%		9811-25	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	22.2	µg/L	111%		9811-25	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	40.7	µg/L	102%		9811-26	1	80-120%	
Chlorodibromoacetic acid	Duplicate	2.2	2.1	µg/L		4.7%	9810-368	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	47.2	µg/L	118%		9810-386	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9811-23	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9811-24	2	70-130%	
Chlorodibromoacetic acid	Standard	20.0	21.1	µg/L	106%		9811-25	2	80-120%	
Chlorodibromoacetic acid	Standard	20.0	22.0	µg/L	110%		9811-25	2	80-120%	
Chlorodibromoacetic acid	Standard	40.0	41.8	µg/L	104%		9811-26	2	80-120%	
Dibromoacetic acid	Duplicate	7.2	6.2	µg/L		14.9%	9810-368	1		
Dibromoacetic acid	Matrix Spike	40.0	42.9	µg/L	107%		9810-386	1		
Dibromoacetic acid	Method Blank		ND*	µg/L			9811-23	1		
Dibromoacetic acid	Secondary Source Std	20.0	22.7	µg/L	114%		9811-24	1	70-130%	
Dibromoacetic acid	Standard	20.0	21.4	µg/L	107%		9811-25	1	80-120%	
Dibromoacetic acid	Standard	20.0	21.4	µg/L	107%		9811-25	1	80-120%	
Dibromoacetic acid	Standard	40.0	39.5	µg/L	99%		9811-26	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

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Study Title: ICR RSSCT #3

Dichloroacetic acid	Duplicate	2.7	1.9	µg/L	34.8%		9810-368	1
Dichloroacetic acid	Matrix Spike	40.0	42.5	µg/L	106%		9810-386	1
Dichloroacetic acid	Method Blank		ND*	µg/L			9811-23	1
Dichloroacetic acid	Secondary Source Std	20.0	20.4	µg/L	102%		9811-24	1 70-130%
Dichloroacetic acid	Standard	20.0	21.1	µg/L	106%		9811-25	1 80-120%
Dichloroacetic acid	Standard	20.0	20.7	µg/L	103%		9811-25	1 80-120%
Dichloroacetic acid	Standard	40.0	39.5	µg/L	99%		9811-26	1 80-120%
Monobromoacetic acid	Duplicate	ND	ND	µg/L		NA	9810-368	1
Monobromoacetic acid	Matrix Spike	40.0	40.3	µg/L	101%		9810-386	1
Monobromoacetic acid	Method Blank		ND*	µg/L			9811-23	1
Monobromoacetic acid	Secondary Source Std	20.0	21.2	µg/L	106%		9811-24	1 70-130%
Monobromoacetic acid	Standard	20.0	20.8	µg/L	104%		9811-25	1 80-120%
Monobromoacetic acid	Standard	20.0	20.6	µg/L	103%		9811-25	1 80-120%
Monobromoacetic acid	Standard	40.0	39.0	µg/L	97%		9811-26	1 80-120%
Monochloroacetic acid	Duplicate	ND	ND	µg/L		NA	9810-368	2
Monochloroacetic acid	Matrix Spike	40.0	38.2	µg/L	96%		9810-386	2
Monochloroacetic acid	Method Blank		ND*	µg/L			9811-23	2
Monochloroacetic acid	Secondary Source Std	20.0	21.4	µg/L	107%		9811-24	2 70-130%
Monochloroacetic acid	Standard	20.0	19.1	µg/L	96%		9811-25	2 80-120%
Monochloroacetic acid	Standard	20.0	21.4	µg/L	107%		9811-25	2 80-120%
Monochloroacetic acid	Standard	40.0	40.4	µg/L	101%		9811-26	2 80-120%
Tribromoacetic acid	Duplicate	ND	ND	µg/L		NA	9810-368	4
Tribromoacetic acid	Matrix Spike	40.0	48.4	µg/L	121%		9810-386	4
Tribromoacetic acid	Method Blank		ND*	µg/L			9811-23	4
Tribromoacetic acid	Secondary Source Std		ND	µg/L			9811-24	4 70-130%
Tribromoacetic acid	Standard	20.0	21.0	µg/L	105%		9811-25	4 80-120%
Tribromoacetic acid	Standard	20.0	23.9	µg/L	119%		9811-25	4 80-120%
Tribromoacetic acid	Standard	40.0	42.6	µg/L	106%		9811-26	4 80-120%
Trichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9810-368	1
Trichloroacetic acid	Matrix Spike	40.0	47.2	µg/L	118%		9810-386	1
Trichloroacetic acid	Method Blank		ND*	µg/L			9811-23	1
Trichloroacetic acid	Secondary Source Std	20.0	23.2	µg/L	116%		9811-24	1 70-130%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

Trichloroacetic acid	Standard	20.0	21.1 µg/L	106%	9811-25	1	80-120%
Trichloroacetic acid	Standard	20.0	21.5 µg/L	108%	9811-25	1	80-120%
Trichloroacetic acid	Standard	40.0	39.1 µg/L	98%	9811-26	1	80-120%

End of quality control report

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QC Results from Montgomery Watson Laboratories

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Mr. Doug Robbins
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City of Greensboro
6268 Bryan Park Road
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Phone: 336-375-2227 Fax: 336-375-2207

Study#: 147
Study Title: ICR RSSCT #3

QC Batch ID: 85823 **Report #:** 48195, 48197

Analysis: CA **Method:** EPA/ML 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	52.6	105.0%		(85 - 115)
LCS2	Calcium, Total, ICAP	50	52.9	106.0%		(85 - 115)
MS	Calcium, Total, ICAP	50	48.4	97.0%		(70 - 130)

QC Batch ID: 85872 **Report #:** 48195, 48197

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	20.4	102.0%		(85 - 115)
LCS2	Magnesium, Total, ICAP	20	20.3	102.0%		(85 - 115)
MS	Magnesium, Total, ICAP	20	18.9	94.0%		(70 - 130)

QC Batch ID: 86042 **Report #:** 48195

Analysis: BR **Method:** ML/EPA 300

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Bromide	0.02	0.023	115.0%		(50 - 150)
LCS2	Bromide	0.1	0.101	101.0%		(90 - 110)
MS	Bromide	0.1	0.1	100.0%		(80 - 120)
MSD	Bromide	0.1	0.094	94.0%		(80 - 120)

QC Batch ID: 86297 **Report #:** 48455, 48456

Analysis: CA **Method:** EPA/ML 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	47.8	96.0%		(85 - 115)
LCS2	Calcium, Total, ICAP	50	48.8	98.0%		(85 - 115)
MBLK	Calcium, Total, ICAP	ND	ND			
MS	Calcium, Total, ICAP	50	52.2	104.0%		(70 - 130)

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

QC Results from Montgomery Watson Laboratories

Mr. Doug Robbins
City of Greensboro

Study#: 147
Study Title: ICR RSSCT #3

QC Batch ID: 86300 **Report #:** 48455, 48456

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	19	95.0%		(85 - 115)
LCS2	Magnesium, Total, ICAP	20	19.3	96.0%		(85 - 115)
MBLK	Magnesium, Total, ICAP	ND	ND			
MS	Magnesium, Total, ICAP	20	20.4	102.0%		(70 - 130)

QC Batch ID: 86398 **Report #:** 48195, 48197

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	1.02	102.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	1	100.0%		(80 - 120)
MS	Ammonia Nitrogen	1	0.97	97.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	0.96	96.0%		(80 - 120)

QC Batch ID: 86459 **Report #:** 48456

Analysis: BR **Method:** ML/EPA 300

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Bromide	0.02	0.021	105.0%		(50 - 150)
LCS2	Bromide	0.1	0.102	102.0%		(90 - 110)
MS	Bromide	0.1	0.095	95.0%		(80 - 120)
MSD	Bromide	0.1	0.095	95.0%		(80 - 120)

QC Batch ID: 86614 **Report #:** 48455, 48456

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	1	100.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	1.02	102.0%		(80 - 120)
MBLK	Ammonia Nitrogen	ND	ND			
MS	Ammonia Nitrogen	1	0.97	97.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	0.98	98.0%		(80 - 120)

End of MW QC report

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

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Comments

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Phone: 336-375-2227 Fax: 336-375-2207

Study#: 147
Study Title: ICR RSSCT #3

Study comments

An error occurred in the initial design. Instead of running EBCTs of 10 and 20 minutes, the actual EBCTs were 7.18 and 14.36 minutes.

Analysis comments

Analysis: Turbidity
Method: SM 2130 B

Reported turbidity data has been rounded following the requirements of SM 2130 B, reproduced in the table below (Standard Methods, 1995). Note that the reported digits are not necessarily significant.

Turbidity Range	Report to Nearest
0-1.0	0.05
1-10	0.1
10-40	1
40-100	5
100-400	10
400-1000	50
> 1000	100

End of comments

Summers & Hooper, Inc.
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Laboratory Report

Client:

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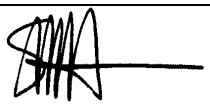
Study Title: ICR RSSCT #4
Study #: 205

Reviewed By: 
Stuart M. Hooper
Date Reviewed: 7/13/99

Electronic copies of the results and quality control data are available upon request.

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Laboratory Test Results

Mr. Doug Robbins
Laboratory Supervisor
City of Greensboro
6268 Bryan Park Road
Brown Summit, NC 27214

Phone: 336-375-2227 Fax: 336-375-2207

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: Greensboro Settled TOC **S&H ID:** 9901-7 **Date Sampled:** 1/4/99 8:15:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1	TOC-ICR TOC	2.10	mg/L	SM 5310 C	1	0.50	1/4/99		1/5/99	7-0-488
2	TOC-ICR TOC (Dupl)	2.18	mg/L	SM 5310 C	1	0.50	1/4/99		1/5/99	7-0-488
		2.14	**mg/L**	**3.7 % RPD**						

Sample ID: Greensboro Raw TOC **S&H ID:** 9901-8 **Date Sampled:** 1/4/99 8:15:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
3	TOC-ICR TOC	4.13	mg/L	SM 5310 C	1	0.50	1/4/99		1/5/99	7-0-488
4	TOC-ICR TOC (Dupl)	4.12	mg/L	SM 5310 C	1	0.50	1/4/99		1/5/99	7-0-488
		4.13	**mg/L**	**0.2 % RPD**						

Sample ID: Green.Filtered **S&H ID:** 9901-9 **Date Sampled:** 1/5/99 2:35:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
5	TOC-ICR TOC	2.37	mg/L	SM 5310 C	1	0.50	1/5/99		1/17/99	7-0-496
6	TOC-ICR TOC (Dupl)	2.41	mg/L	SM 5310 C	1	0.50	1/5/99		1/17/99	7-0-496
		2.39	**mg/L**	**1.7 % RPD**						

Sample ID: Green.Settled **S&H ID:** 9901-10 **Date Sampled:** 1/5/99 2:30:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
7	TOC-ICR TOC	3.24	mg/L	SM 5310 C	1	0.50	1/5/99		1/17/99	7-0-496
8	TOC-ICR TOC (Dupl)	3.30	mg/L	SM 5310 C	1	0.50	1/5/99		1/17/99	7-0-496
		3.27	**mg/L**	**1.8 % RPD**						

Sample ID: Green.Filt.on.Arrival **S&H ID:** 9901-13 **Date Sampled:** 1/8/99 12:15:00 PM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
9	TOC-ICR TOC	2.15	mg/L	SM 5310 C	1	0.50	1/8/99		1/8/99	7-0-489
10	TOC-ICR TOC (Dupl)	2.15	mg/L	SM 5310 C	1	0.50	1/8/99		1/8/99	7-0-489
		2.15	**mg/L**	**0.0 % RPD**						

Sample ID: Green.Set.on.Arrival **S&H ID:** 9901-14 **Date Sampled:** 1/8/99 10:15:00 AM

#	Analysis Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
11	TOC-ICR TOC	2.99	mg/L	SM 5310 C	1	0.50	1/8/99		1/17/99	7-0-496
12	TOC-ICR TOC (Dupl)	3.06	mg/L	SM 5310 C	1	0.50	1/8/99		1/17/99	7-0-496
		3.03	**mg/L**	**2.3 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-1 **S&H ID:** 9901-18 **Date Sampled:** 1/11/99 1:58:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
13	Cl2Dose	Chlorine Dose	1.70	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/15/99		1/15/99	n/a
14	Cl2Res	Chlorine Residual	0.77	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/15/99		1/16/99	n/a
15	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.0	%	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
16	HAA-ICR	2-Bromopropionic acid (Surrogate)	101.6	%	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
17	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
18	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
19	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/16/99	1/21/99	1/21/99	0-298-0
20	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
21	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
22	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
23	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/16/99	1/21/99	1/21/99	0-298-0
24	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/16/99	1/21/99	1/21/99	0-298-0
25	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
26	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	1/15/99		1/16/99	n/a
27	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/15/99		1/15/99	n/a
28	pH	pH	8.2	Unit	SM 4500-H+ B	1	n/a	1/11/99		1/11/99	n/a
29	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/15/99		1/16/99	n/a
30	TEMP	Temperature	22.0	ºC	SM 2550 B	1	n/a	1/11/99		1/11/99	n/a
31	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	1/15/99		1/16/99	n/a
32	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	1/11/99		1/11/99	7-0-490
33	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	1/11/99		1/11/99	7-0-490
			ND	**mg/L**							
34	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/16/99		1/20/99	12-0-269
35	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/16/99		1/20/99	12-0-269
			ND	**µg Cl-/L**							
36	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.4	%	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
37	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
38	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
39	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
40	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
41	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/11/99		1/11/99	8-0-392
42	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/11/99		1/11/99	8-0-392
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-15 **S&H ID:** 9901-32 **Date Sampled:** 1/15/99 9:20:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
43	Cl2Dose	Chlorine Dose	1.29	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/20/99		1/20/99	n/a
44	Cl2Res	Chlorine Residual	0.71	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/20/99		1/21/99	n/a
45	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.4	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
46	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.0	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
47	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
48	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
49	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
50	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
51	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
52	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
53	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
54	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/21/99	1/21/99	1/22/99	0-298-0
55	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
56	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/21/99	n/a
57	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/20/99	n/a
58	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	1/15/99		1/15/99	n/a
59	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/20/99		1/21/99	n/a
60	TEMP	Temperature	22.0	ºC	SM 2550 B	1	n/a	1/15/99		1/15/99	n/a
61	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	1/20/99		1/21/99	n/a
62	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	1/15/99		1/16/99	7-0-495
63	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	1/15/99		1/16/99	7-0-495
			ND	**mg/L**							
64	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/21/99	12-0-270
65	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/21/99	12-0-270
			ND	**µg Cl-/L**							
66	THM-ICR	1,2,3-Trichloropropane (Surrogate)	99.2	%	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
67	THM-ICR	Bromodichloromethane	1.0	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
68	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
69	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
70	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
71	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/15/99		1/17/99	8-0-395
72	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/15/99		1/17/99	8-0-395
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-17 **S&H ID:** 9901-34 **Date Sampled:** 1/16/99 10:55:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
73	Cl2Dose	Chlorine Dose	1.34	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/20/99		1/20/99	n/a
74	Cl2Res	Chlorine Residual	0.45	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/20/99		1/21/99	n/a
75	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.6	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
76	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.8	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
77	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
78	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
79	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
80	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
81	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
82	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
83	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
84	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/21/99	1/21/99	1/22/99	0-298-0
85	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
86	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/21/99	n/a
87	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/20/99	n/a
88	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	1/16/99		1/16/99	n/a
89	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/20/99		1/21/99	n/a
90	TEMP	Temperature	22.2	ºC	SM 2550 B	1	n/a	1/16/99		1/16/99	n/a
91	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	1/20/99		1/21/99	n/a
92	TOC-ICR	TOC	0.54	mg/L	SM 5310 C	1	0.50	1/16/99		1/16/99	7-0-495
93	TOC-ICR	TOC (Dupl)	0.56	mg/L	SM 5310 C	1	0.50	1/16/99		1/16/99	7-0-495
			0.55	**mg/L**	**3.6 % RPD**						
94	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/21/99	12-0-270
95	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/21/99	12-0-270
			ND	**µg Cl-/L**							
96	THM-ICR	1,2,3-Trichloropropane (Surrogate)	104.4	%	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
97	THM-ICR	Bromodichloromethane	1.6	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
98	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
99	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
100	THM-ICR	Dibromochloromethane	1.8	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
101	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/16/99		1/17/99	8-0-395
102	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/16/99		1/17/99	8-0-395
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-19 **S&H ID:** 9901-36 **Date Sampled:** 1/17/99 12:20:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
103	Cl2Dose	Chlorine Dose	1.37	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/20/99		1/20/99	n/a
104	Cl2Res	Chlorine Residual	0.63	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/20/99		1/21/99	n/a
105	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	94.0	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
106	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
107	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
108	HAA-ICR	Bromodichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
109	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
110	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
111	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
112	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
113	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
114	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/21/99	1/21/99	1/22/99	0-298-0
115	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
116	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/21/99	n/a
117	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/20/99	n/a
118	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	1/17/99		1/17/99	n/a
119	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/20/99		1/21/99	n/a
120	TEMP	Temperature	21.9	ºC	SM 2550 B	1	n/a	1/17/99		1/17/99	n/a
121	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	1/20/99		1/21/99	n/a
122	TOC-ICR	TOC	0.64	mg/L	SM 5310 C	1	0.50	1/17/99		1/17/99	7-0-496
123	TOC-ICR	TOC (Dupl)	0.64	mg/L	SM 5310 C	1	0.50	1/17/99		1/17/99	7-0-496
			0.64	**mg/L**	**0.0 % RPD**						
124	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/25/99	12-0-271
125	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/25/99	12-0-271
			ND	**µg Cl-/L**							
126	THM-ICR	1,2,3-Trichloropropane (Surrogate)	104.4	%	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
127	THM-ICR	Bromodichloromethane	2.1	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
128	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
129	THM-ICR	Chloroform	1.7	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
130	THM-ICR	Dibromochloromethane	1.1	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
131	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/17/99		1/17/99	8-0-395
132	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/17/99		1/17/99	8-0-395
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-20 **S&H ID:** 9901-37 **Date Sampled:** 1/17/99 1:42:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
133	Cl2Dose	Chlorine Dose	1.42	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/20/99		1/20/99	n/a
134	Cl2Res	Chlorine Residual	0.72	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/20/99		1/21/99	n/a
135	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	90.0	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
136	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.8	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
137	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
138	HAA-ICR	Bromodichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
139	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
140	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
141	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
142	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
143	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
144	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/21/99	1/21/99	1/22/99	0-298-0
145	HAA-ICR	Trichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
146	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/21/99	n/a
147	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/20/99	n/a
148	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	1/17/99		1/17/99	n/a
149	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/20/99		1/21/99	n/a
150	TEMP	Temperature	22.2	ºC	SM 2550 B	1	n/a	1/17/99		1/17/99	n/a
151	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	1/20/99		1/21/99	n/a
152	TOC-ICR	TOC	0.77	mg/L	SM 5310 C	1	0.50	1/17/99		1/17/99	7-0-496
153	TOC-ICR	TOC (Dupl)	0.77	mg/L	SM 5310 C	1	0.50	1/17/99		1/17/99	7-0-496
			0.77	**mg/L**	**0.0 % RPD**						
154	TOX-ICR	TOX	25	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/25/99	12-0-271
155	TOX-ICR	TOX (Dupl)	25	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/25/99	12-0-271
			25	**µg Cl-/L**	**0.0 % RPD**						
156	THM-ICR	1,2,3-Trichloropropane (Surrogate)	103.2	%	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
157	THM-ICR	Bromodichloromethane	2.6	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
158	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
159	THM-ICR	Chloroform	2.2	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
160	THM-ICR	Dibromochloromethane	1.8	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
161	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/17/99		1/19/99	8-0-396
162	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/17/99		1/19/99	8-0-396
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-25 **S&H ID:** 9901-42 **Date Sampled:** 1/18/99 11:25:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
163	Cl2Dose	Chlorine Dose	1.97	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/21/99		1/21/99	n/a
164	Cl2Res	Chlorine Residual	1.21	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/21/99		1/22/99	n/a
165	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	95.2	%	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
166	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
167	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
168	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
169	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/22/99	1/28/99	1/28/99	0-300-0
170	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
171	HAA-ICR	Dichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
172	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
173	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/22/99	1/28/99	1/28/99	0-300-0
174	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/22/99	1/28/99	1/28/99	0-300-0
175	HAA-ICR	Trichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
176	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	1/21/99		1/22/99	n/a
177	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/21/99		1/21/99	n/a
178	pH	pH	7.5	Unit	SM 4500-H+ B	1	n/a	1/18/99		1/18/99	n/a
179	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/21/99		1/22/99	n/a
180	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	1/18/99		1/18/99	n/a
181	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	1/21/99		1/22/99	n/a
182	TOC-ICR	TOC	0.90	mg/L	SM 5310 C	1	0.50	1/18/99		1/20/99	7-0-498
183	TOC-ICR	TOC (Dupl)	0.87	mg/L	SM 5310 C	1	0.50	1/18/99		1/20/99	7-0-498
			0.89	**mg/L**	**3.4 % RPD**						
184	TOX-ICR	TOX	44	µg Cl-/L	SM 5320 B	1	25	1/22/99		1/25/99	12-0-271
185	TOX-ICR	TOX (Dupl)	36	µg Cl-/L	SM 5320 B	1	25	1/22/99		1/25/99	12-0-271
			40	**µg Cl-/L**	**20.0 % RPD**						
186	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.0	%	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
187	THM-ICR	Bromodichloromethane	3.2	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
188	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
189	THM-ICR	Chloroform	3.4	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
190	THM-ICR	Dibromochloromethane	1.7	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
191	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	1/18/99		1/19/99	8-0-396
192	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	1/18/99		1/19/99	8-0-396
			0.009	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-28 **S&H ID:** 9901-45 **Date Sampled:** 1/19/99 7:53:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
193	Cl2Dose	Chlorine Dose	2.02	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/21/99		1/21/99	n/a
194	Cl2Res	Chlorine Residual	1.19	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/21/99		1/22/99	n/a
195	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	81.6	%	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
196	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.0	%	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
197	HAA-ICR	Bromochloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
198	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
199	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/22/99	1/28/99	1/28/99	0-300-0
200	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
201	HAA-ICR	Dichloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
202	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
203	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/22/99	1/28/99	1/28/99	0-300-0
204	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/22/99	1/28/99	1/28/99	0-300-0
205	HAA-ICR	Trichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
206	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	1/21/99		1/22/99	n/a
207	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/21/99		1/21/99	n/a
208	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/19/99		1/19/99	n/a
209	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/21/99		1/22/99	n/a
210	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	1/19/99		1/19/99	n/a
211	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	1/21/99		1/22/99	n/a
212	TOC-ICR	TOC	0.99	mg/L	SM 5310 C	1	0.50	1/19/99		1/20/99	7-0-498
213	TOC-ICR	TOC (Dupl)	0.98	mg/L	SM 5310 C	1	0.50	1/19/99		1/20/99	7-0-498
			0.98	**mg/L**	**1.0 % RPD**						
214	TOX-ICR	TOX	41	µg Cl-/L	SM 5320 B	1	25	1/22/99		1/25/99	12-0-271
215	TOX-ICR	TOX (Dupl)	40	µg Cl-/L	SM 5320 B	1	25	1/22/99		1/25/99	12-0-271
			41	**µg Cl-/L**	**2.4 % RPD**						
216	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.4	%	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
217	THM-ICR	Bromodichloromethane	3.9	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
218	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
219	THM-ICR	Chloroform	4.3	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
220	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
221	UV-ICR	UV	0.010	1/cm	SM 5910 B	1	0.009	1/19/99		1/20/99	8-0-397
222	UV-ICR	UV (Dupl)	0.010	1/cm	SM 5910 B	1	0.009	1/19/99		1/20/99	8-0-397
			0.010	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-17d **S&H ID:** 9901-51 **Date Sampled:** 1/16/99 10:55:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
223	Cl2Dose	Chlorine Dose	1.34	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/20/99		1/20/99	n/a
224	Cl2Res	Chlorine Residual	0.64	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/20/99		1/21/99	n/a
225	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	92.0	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
226	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.8	%	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
227	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
228	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
229	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
230	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
231	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
232	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
233	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/21/99	1/21/99	1/22/99	0-298-0
234	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/21/99	1/21/99	1/22/99	0-298-0
235	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/21/99	1/21/99	1/22/99	0-298-0
236	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/21/99	n/a
237	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/20/99		1/20/99	n/a
238	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	1/16/99		1/16/99	n/a
239	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/20/99		1/21/99	n/a
240	TEMP	Temperature	22.1	ºC	SM 2550 B	1	n/a	1/16/99		1/16/99	n/a
241	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	1/20/99		1/21/99	n/a
242	TOC-ICR	TOC	0.57	mg/L	SM 5310 C	1	0.50	1/16/99		1/16/99	7-0-495
243	TOC-ICR	TOC (Dupl)	0.56	mg/L	SM 5310 C	1	0.50	1/16/99		1/16/99	7-0-495
			0.56	**mg/L**	**1.8 % RPD**						
244	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/25/99	12-0-271
245	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/21/99		1/25/99	12-0-271
			ND	**µg Cl-/L**							
246	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.0	%	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
247	THM-ICR	Bromodichloromethane	1.5	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
248	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
249	THM-ICR	Chloroform	1.1	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
250	THM-ICR	Dibromochloromethane	1.2	µg/L	EPA 551.1	1	1.0	1/21/99	1/21/99	1/22/99	0-299-0
251	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/16/99		1/17/99	8-0-395
252	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/16/99		1/17/99	8-0-395
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-28d **S&H ID:** 9901-53 **Date Sampled:** 1/19/99 7:53:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
253	Cl2Dose	Chlorine Dose	2.02	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/21/99		1/21/99	n/a
254	Cl2Res	Chlorine Residual	1.21	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/21/99		1/22/99	n/a
255	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	82.4	%	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
256	HAA-ICR	2-Bromopropionic acid (Surrogate)	92.8	%	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
257	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
258	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
259	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/22/99	1/28/99	1/28/99	0-300-0
260	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
261	HAA-ICR	Dichloroacetic acid	2.1	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
262	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
263	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/22/99	1/28/99	1/28/99	0-300-0
264	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/22/99	1/28/99	1/28/99	0-300-0
265	HAA-ICR	Trichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	1/22/99	1/28/99	1/28/99	0-300-0
266	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	1/21/99		1/22/99	n/a
267	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/21/99		1/21/99	n/a
268	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/19/99		1/19/99	n/a
269	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/21/99		1/22/99	n/a
270	TEMP	Temperature	22.3	ºC	SM 2550 B	1	n/a	1/19/99		1/19/99	n/a
271	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	1/21/99		1/22/99	n/a
272	TOC-ICR	TOC	0.97	mg/L	SM 5310 C	1	0.50	1/19/99		1/20/99	7-0-498
273	TOC-ICR	TOC (Dupl)	1.00	mg/L	SM 5310 C	1	0.50	1/19/99		1/20/99	7-0-498
			0.98	**mg/L**	**3.1 % RPD**						
274	TOX-ICR	TOX	41	µg Cl-/L	SM 5320 B	1	25	1/22/99		1/25/99	12-0-271
275	TOX-ICR	TOX (Dupl)	42	µg Cl-/L	SM 5320 B	1	25	1/22/99		1/25/99	12-0-271
			42	**µg Cl-/L**	**2.4 % RPD**						
276	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.8	%	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
277	THM-ICR	Bromodichloromethane	3.7	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
278	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
279	THM-ICR	Chloroform	4.2	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
280	THM-ICR	Dibromochloromethane	1.8	µg/L	EPA 551.1	1	1.0	1/22/99	2/1/99	2/1/99	0-301-0
281	UV-ICR	UV	0.010	1/cm	SM 5910 B	1	0.009	1/19/99		1/20/99	8-0-397
282	UV-ICR	UV (Dupl)	0.010	1/cm	SM 5910 B	1	0.009	1/19/99		1/20/99	8-0-397
			0.010	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.10.Eff-38d **S&H ID:** 9901-56 **Date Sampled:** 1/27/99 6:21:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
283	Cl2Dose	Chlorine Dose	1.99	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/2/99		2/2/99	n/a
284	Cl2Res	Chlorine Residual	0.96	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/2/99		2/3/99	n/a
285	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	107.2	%	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
286	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.8	%	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
287	HAA-ICR	Bromochloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
288	HAA-ICR	Bromodichloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
289	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/3/99	2/10/99	2/10/99	0-305-0
290	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
291	HAA-ICR	Dichloroacetic acid	4.0	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
292	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
293	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/3/99	2/10/99	2/10/99	0-305-0
294	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/3/99	2/10/99	2/10/99	0-305-0
295	HAA-ICR	Trichloroacetic acid	3.8	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
296	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/3/99	n/a
297	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/2/99	n/a
298	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/27/99	n/a
299	TEMP	Cl2 Temperature	8.9	ºC	SM 2550 B	1	n/a	2/2/99		2/3/99	n/a
300	TEMP	Temperature	21.8	ºC	SM 2550 B	1	n/a	1/27/99		1/27/99	n/a
301	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/2/99		2/3/99	n/a
302	TOC-ICR	TOC	1.42	mg/L	SM 5310 C	1	0.50	1/27/99		1/28/99	7-0-506
303	TOC-ICR	TOC (Dupl)	1.42	mg/L	SM 5310 C	1	0.50	1/27/99		1/28/99	7-0-506
			1.42	**mg/L**	**0.0 % RPD**						
304	TOX-ICR	TOX	73	µg Cl-/L	SM 5320 B	1	25	2/3/99		2/8/99	12-0-277
305	TOX-ICR	TOX (Dupl)	77	µg Cl-/L	SM 5320 B	1	25	2/3/99		2/8/99	12-0-277
			75	**µg Cl-/L**	**5.3 % RPD**						
306	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.0	%	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
307	THM-ICR	Bromodichloromethane	5.4	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
308	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
309	THM-ICR	Chloroform	8.6	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
310	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
311	UV-ICR	UV	0.018	1/cm	SM 5910 B	1	0.009	1/27/99		1/28/99	8-0-408
312	UV-ICR	UV (Dupl)	0.018	1/cm	SM 5910 B	1	0.009	1/27/99		1/28/99	8-0-408
			0.018	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-1 **S&H ID:** 9901-58 **Date Sampled:** 1/11/99 1:47:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
313	Cl2Dose	Chlorine Dose	1.80	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/15/99		1/15/99	n/a
314	Cl2Res	Chlorine Residual	0.90	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/15/99		1/16/99	n/a
315	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	102.0	%	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
316	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
317	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
318	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
319	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/16/99	1/21/99	1/21/99	0-298-0
320	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
321	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
322	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
323	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/16/99	1/21/99	1/21/99	0-298-0
324	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/16/99	1/21/99	1/21/99	0-298-0
325	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
326	pH	Cl2 pH - Final	7.8	Unit	SM 4500-H+ B	1	n/a	1/15/99		1/16/99	n/a
327	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	1/15/99		1/15/99	n/a
328	pH	pH	8.8	Unit	SM 4500-H+ B	1	n/a	1/11/99		1/11/99	n/a
329	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/15/99		1/16/99	n/a
330	TEMP	Temperature	22.5	ºC	SM 2550 B	1	n/a	1/11/99		1/11/99	n/a
331	TIME	Cl2 Incubation Time	23.9	hrs	n/a	1	n/a	1/15/99		1/16/99	n/a
332	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	1/11/99		1/11/99	7-0-490
333	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	1/11/99		1/11/99	7-0-490
			ND	**mg/L**							
334	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/16/99		1/20/99	12-0-269
335	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/16/99		1/20/99	12-0-269
			ND	**µg Cl-/L**							
336	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.4	%	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
337	THM-ICR	Bromodichloromethane	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
338	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
339	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
340	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
341	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/11/99		1/11/99	8-0-392
342	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/11/99		1/11/99	8-0-392
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-7 **S&H ID:** 9901-64 **Date Sampled:** 1/24/99 9:33:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
343	Cl2Dose	Chlorine Dose	1.54	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/26/99		1/26/99	n/a
344	Cl2Res	Chlorine Residual	0.90	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/26/99		1/27/99	n/a
345	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	82.4	%	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
346	HAA-ICR	2-Bromopropionic acid (Surrogate)	87.2	%	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
347	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
348	HAA-ICR	Bromodichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
349	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/27/99	1/28/99	1/28/99	0-300-0
350	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
351	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
352	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
353	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/27/99	1/28/99	1/28/99	0-300-0
354	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/27/99	1/28/99	1/28/99	0-300-0
355	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
356	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/26/99		1/27/99	n/a
357	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/26/99		1/26/99	n/a
358	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/24/99		1/24/99	n/a
359	TEMP	Cl2 Temperature	8.7	ºC	SM 2550 B	1	n/a	1/26/99		1/27/99	n/a
360	TEMP	Temperature	23.1	ºC	SM 2550 B	1	n/a	1/24/99		1/24/99	n/a
361	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	1/26/99		1/27/99	n/a
362	TOC-ICR	TOC	ND	mg/L	SM 5310 C	1	0.50	1/24/99		1/24/99	7-0-502
363	TOC-ICR	TOC (Dupl)	ND	mg/L	SM 5310 C	1	0.50	1/24/99		1/24/99	7-0-502
			ND	**mg/L**							
364	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/27/99		1/28/99	12-0-272
365	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/27/99		1/28/99	12-0-272
			ND	**µg Cl-/L**							
366	THM-ICR	1,2,3-Trichloropropane (Surrogate)	103.2	%	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
367	THM-ICR	Bromodichloromethane	1.1	µg/L	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
368	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
369	THM-ICR	Chloroform	ND	µg/L	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
370	THM-ICR	Dibromochloromethane	ND	µg/L	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
371	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/24/99		1/25/99	8-0-404
372	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/24/99		1/25/99	8-0-404
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-9 **S&H ID:** 9901-66 **Date Sampled:** 1/24/99 11:09:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
373	Cl2Dose	Chlorine Dose	1.65	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/27/99		1/27/99	n/a
374	Cl2Res	Chlorine Residual	0.98	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/27/99		1/28/99	n/a
375	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.8	%	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
376	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.4	%	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
377	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
378	HAA-ICR	Bromodichloroacetic acid	1.0	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
379	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/28/99	2/10/99	2/10/99	0-305-0
380	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
381	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
382	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
383	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/28/99	2/10/99	2/10/99	0-305-0
384	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/28/99	2/10/99	2/10/99	0-305-0
385	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
386	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/28/99	n/a
387	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/27/99	n/a
388	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	1/24/99		1/24/99	n/a
389	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	1/27/99		1/28/99	n/a
390	TEMP	Temperature	23.3	ºC	SM 2550 B	1	n/a	1/24/99		1/24/99	n/a
391	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	1/27/99		1/28/99	n/a
392	TOC-ICR	TOC	0.56	mg/L	SM 5310 C	1	0.50	1/24/99		1/25/99	7-0-503
393	TOC-ICR	TOC (Dupl)	0.53	mg/L	SM 5310 C	1	0.50	1/24/99		1/25/99	7-0-503
			0.55	**mg/L**	**5.5 % RPD**						
394	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/28/99		2/2/99	12-0-275
395	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/28/99		2/2/99	12-0-275
			ND	**µg Cl-/L**							
396	THM-ICR	1,2,3-Trichloropropane (Surrogate)	96.4	%	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
397	THM-ICR	Bromodichloromethane	1.4	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
398	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
399	THM-ICR	Chloroform	1.0	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
400	THM-ICR	Dibromochloromethane	1.3	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
401	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/24/99		1/25/99	8-0-404
402	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/24/99		1/25/99	8-0-404
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-13 **S&H ID:** 9901-70 **Date Sampled:** 1/26/99 9:36:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
403	Cl2Dose	Chlorine Dose	1.69	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/27/99		1/27/99	n/a
404	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/27/99		1/28/99	n/a
405	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	98.8	%	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
406	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.4	%	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
407	HAA-ICR	Bromochloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
408	HAA-ICR	Bromodichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
409	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/28/99	2/10/99	2/10/99	0-305-0
410	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
411	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
412	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
413	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/28/99	2/10/99	2/10/99	0-305-0
414	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/28/99	2/10/99	2/10/99	0-305-0
415	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
416	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/28/99	n/a
417	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/27/99	n/a
418	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/26/99		1/26/99	n/a
419	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	1/27/99		1/28/99	n/a
420	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	1/26/99		1/26/99	n/a
421	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	1/27/99		1/28/99	n/a
422	TOC-ICR	TOC	0.66	mg/L	SM 5310 C	1	0.50	1/26/99		1/26/99	7-0-504
423	TOC-ICR	TOC (Dupl)	0.66	mg/L	SM 5310 C	1	0.50	1/26/99		1/26/99	7-0-504
			0.66	**mg/L**	**0.0 % RPD**						
424	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/28/99		2/2/99	12-0-275
425	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/28/99		2/2/99	12-0-275
			ND	**µg Cl-/L**							
426	THM-ICR	1,2,3-Trichloropropane (Surrogate)	105.2	%	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
427	THM-ICR	Bromodichloromethane	2.2	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
428	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
429	THM-ICR	Chloroform	1.6	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
430	THM-ICR	Dibromochloromethane	1.6	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
431	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/26/99		1/26/99	8-0-407
432	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/26/99		1/26/99	8-0-407
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-16 **S&H ID:** 9901-73 **Date Sampled:** 1/28/99 8:12:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
433	Cl2Dose	Chlorine Dose	1.74	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/2/99		2/2/99	n/a
434	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/2/99		2/3/99	n/a
435	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	100.4	%	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
436	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.2	%	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
437	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
438	HAA-ICR	Bromodichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
439	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/3/99	2/10/99	2/10/99	0-305-0
440	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
441	HAA-ICR	Dichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
442	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
443	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/3/99	2/10/99	2/10/99	0-305-0
444	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/3/99	2/10/99	2/10/99	0-305-0
445	HAA-ICR	Trichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/10/99	0-305-0
446	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/3/99	n/a
447	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/2/99	n/a
448	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	1/28/99		1/28/99	n/a
449	TEMP	Cl2 Temperature	8.9	ºC	SM 2550 B	1	n/a	2/2/99		2/3/99	n/a
450	TEMP	Temperature	23.0	ºC	SM 2550 B	1	n/a	1/28/99		1/28/99	n/a
451	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/2/99		2/3/99	n/a
452	TOC-ICR	TOC	0.77	mg/L	SM 5310 C	1	0.50	1/28/99		1/29/99	7-0-507
453	TOC-ICR	TOC (Dupl)	0.77	mg/L	SM 5310 C	1	0.50	1/28/99		1/29/99	7-0-507
			0.77	**mg/L**	**0.0 % RPD**						
454	TOX-ICR	TOX	26	µg Cl-/L	SM 5320 B	1	25	2/3/99		2/4/99	12-0-276
455	TOX-ICR	TOX (Dupl)	29	µg Cl-/L	SM 5320 B	1	25	2/3/99		2/4/99	12-0-276
			28	**µg Cl-/L**	**10.7 % RPD**						
456	THM-ICR	1,2,3-Trichloropropane (Surrogate)	104.8	%	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
457	THM-ICR	Bromodichloromethane	2.7	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
458	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
459	THM-ICR	Chloroform	2.4	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
460	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
461	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/28/99		1/29/99	8-0-409
462	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/28/99		1/29/99	8-0-409
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-17 **S&H ID:** 9901-74 **Date Sampled:** 1/30/99 1:38:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
463	Cl2Dose	Chlorine Dose	1.76	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/2/99		2/2/99	n/a
464	Cl2Res	Chlorine Residual	1.04	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/2/99		2/3/99	n/a
465	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	94.8	%	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
466	HAA-ICR	2-Bromopropionic acid (Surrogate)	95.6	%	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
467	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
468	HAA-ICR	Bromodichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
469	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/3/99	2/10/99	2/11/99	0-305-0
470	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
471	HAA-ICR	Dichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
472	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
473	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/3/99	2/10/99	2/11/99	0-305-0
474	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/3/99	2/10/99	2/11/99	0-305-0
475	HAA-ICR	Trichloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
476	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/3/99	n/a
477	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/2/99	n/a
478	pH	pH	7.9	Unit	SM 4500-H+ B	1	n/a	1/30/99		1/30/99	n/a
479	TEMP	Cl2 Temperature	8.9	ºC	SM 2550 B	1	n/a	2/2/99		2/3/99	n/a
480	TEMP	Temperature	22.5	ºC	SM 2550 B	1	n/a	1/30/99		1/30/99	n/a
481	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/2/99		2/3/99	n/a
482	TOC-ICR	TOC	0.82	mg/L	SM 5310 C	1	0.50	1/30/99		1/30/99	7-0-508
483	TOC-ICR	TOC (Dupl)	0.84	mg/L	SM 5310 C	1	0.50	1/30/99		1/30/99	7-0-508
			0.83	**mg/L**	**2.4 % RPD**						
484	TOX-ICR	TOX	33	µg Cl-/L	SM 5320 B	1	25	2/3/99		2/4/99	12-0-276
485	TOX-ICR	TOX (Dupl)	31	µg Cl-/L	SM 5320 B	1	25	2/3/99		2/4/99	12-0-276
			32	**µg Cl-/L**	**6.3 % RPD**						
486	THM-ICR	1,2,3-Trichloropropane (Surrogate)	104.8	%	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
487	THM-ICR	Bromodichloromethane	3.1	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
488	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
489	THM-ICR	Chloroform	2.9	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
490	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
491	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/30/99		1/31/99	8-0-410
492	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/30/99		1/31/99	8-0-410
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-19 **S&H ID:** 9901-76 **Date Sampled:** 2/1/99 1:11:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
493	Cl2Dose	Chlorine Dose	1.77	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/4/99		2/4/99	n/a
494	Cl2Res	Chlorine Residual	0.95	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/4/99		2/5/99	n/a
495	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	94.8	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
496	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
497	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
498	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
499	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
500	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
501	HAA-ICR	Dichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
502	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
503	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
504	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/5/99	2/10/99	2/11/99	0-305-0
505	HAA-ICR	Trichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
506	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/5/99	n/a
507	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/4/99	n/a
508	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	2/1/99		2/1/99	n/a
509	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/4/99		2/5/99	n/a
510	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	2/1/99		2/1/99	n/a
511	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/4/99		2/5/99	n/a
512	TOC-ICR	TOC	0.87	mg/L	SM 5310 C	1	0.50	2/1/99		2/1/99	7-0-509
513	TOC-ICR	TOC (Dupl)	0.87	mg/L	SM 5310 C	1	0.50	2/1/99		2/1/99	7-0-509
			0.87	**mg/L**	**0.0 % RPD**						
514	TOX-ICR	TOX	39	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
515	TOX-ICR	TOX (Dupl)	37	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
			38	**µg Cl-/L**	**5.3 % RPD**						
516	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.0	%	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
517	THM-ICR	Bromodichloromethane	3.4	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
518	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
519	THM-ICR	Chloroform	3.3	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
520	THM-ICR	Dibromochloromethane	2.0	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
521	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	2/1/99		2/2/99	8-0-411
522	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	2/1/99		2/2/99	8-0-411
			0.009	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-20 **S&H ID:** 9901-77 **Date Sampled:** 2/3/99 11:05:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
523	Cl2Dose	Chlorine Dose	1.82	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/4/99		2/4/99	n/a
524	Cl2Res	Chlorine Residual	0.98	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/4/99		2/5/99	n/a
525	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	99.6	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
526	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.8	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
527	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
528	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
529	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
530	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
531	HAA-ICR	Dichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
532	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
533	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
534	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/5/99	2/10/99	2/11/99	0-305-0
535	HAA-ICR	Trichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
536	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/5/99	n/a
537	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/4/99	n/a
538	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	2/3/99		2/3/99	n/a
539	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/4/99		2/5/99	n/a
540	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	2/3/99		2/3/99	n/a
541	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/4/99		2/5/99	n/a
542	TOC-ICR	TOC	0.96	mg/L	SM 5310 C	1	0.50	2/3/99		2/3/99	7-0-511
543	TOC-ICR	TOC (Dupl)	0.99	mg/L	SM 5310 C	1	0.50	2/3/99		2/3/99	7-0-511
			0.97	**mg/L**	**3.1 % RPD**						
544	TOX-ICR	TOX	46	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
545	TOX-ICR	TOX (Dupl)	44	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
			45	**µg Cl-/L**	**4.4 % RPD**						
546	THM-ICR	1,2,3-Trichloropropane (Surrogate)	107.6	%	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
547	THM-ICR	Bromodichloromethane	4.0	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
548	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
549	THM-ICR	Chloroform	4.4	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
550	THM-ICR	Dibromochloromethane	2.1	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
551	UV-ICR	UV	0.010	1/cm	SM 5910 B	1	0.009	2/3/99		2/3/99	8-0-412
552	UV-ICR	UV (Dupl)	0.010	1/cm	SM 5910 B	1	0.009	2/3/99		2/3/99	8-0-412
			0.010	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-21 **S&H ID:** 9901-78 **Date Sampled:** 2/5/99 3:33:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
553	Cl2Dose	Chlorine Dose	1.83	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/9/99		2/9/99	n/a
554	Cl2Res	Chlorine Residual	0.97	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/9/99		2/10/99	n/a
555	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	84.4	%	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
556	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.4	%	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
557	HAA-ICR	Bromochloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
558	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
559	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/10/99	2/12/99	2/13/99	0-306-0
560	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
561	HAA-ICR	Dichloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
562	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
563	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/10/99	2/12/99	2/13/99	0-306-0
564	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/10/99	2/12/99	2/13/99	0-306-0
565	HAA-ICR	Trichloroacetic acid	2.3	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
566	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/9/99		2/10/99	n/a
567	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	2/9/99		2/9/99	n/a
568	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	2/5/99		2/5/99	n/a
569	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/9/99		2/10/99	n/a
570	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	2/5/99		2/5/99	n/a
571	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	2/9/99		2/10/99	n/a
572	TOC-ICR	TOC	1.04	mg/L	SM 5310 C	1	0.50	2/5/99		2/5/99	7-0-512
573	TOC-ICR	TOC (Dupl)	1.04	mg/L	SM 5310 C	1	0.50	2/5/99		2/5/99	7-0-512
			1.04	**mg/L**	**0.0 % RPD**						
574	TOX-ICR	TOX	48	µg Cl-/L	SM 5320 B	1	25	2/10/99		2/11/99	12-0-279
575	TOX-ICR	TOX (Dupl)	45	µg Cl-/L	SM 5320 B	1	25	2/10/99		2/11/99	12-0-279
			47	**µg Cl-/L**	**6.4 % RPD**						
576	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.4	%	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
577	THM-ICR	Bromodichloromethane	3.9	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
578	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
579	THM-ICR	Chloroform	4.8	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
580	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
581	UV-ICR	UV	0.011	1/cm	SM 5910 B	1	0.009	2/5/99		2/5/99	8-0-413
582	UV-ICR	UV (Dupl)	0.011	1/cm	SM 5910 B	1	0.009	2/5/99		2/5/99	8-0-413
			0.011	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-22 **S&H ID:** 9901-79 **Date Sampled:** 2/7/99 6:03:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
583	Cl2Dose	Chlorine Dose	1.85	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/9/99		2/9/99	n/a
584	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/9/99		2/10/99	n/a
585	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	89.6	%	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
586	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.8	%	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
587	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
588	HAA-ICR	Bromodichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
589	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/10/99	2/12/99	2/13/99	0-306-0
590	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
591	HAA-ICR	Dichloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
592	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
593	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/10/99	2/12/99	2/13/99	0-306-0
594	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/10/99	2/12/99	2/13/99	0-306-0
595	HAA-ICR	Trichloroacetic acid	2.7	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
596	pH	Cl2 pH - Final	7.8	Unit	SM 4500-H+ B	1	n/a	2/9/99		2/10/99	n/a
597	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/9/99		2/9/99	n/a
598	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	2/7/99		2/7/99	n/a
599	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/9/99		2/10/99	n/a
600	TEMP	Temperature	22.7	ºC	SM 2550 B	1	n/a	2/7/99		2/7/99	n/a
601	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	2/9/99		2/10/99	n/a
602	TOC-ICR	TOC	1.08	mg/L	SM 5310 C	1	0.50	2/7/99		2/8/99	7-0-513
603	TOC-ICR	TOC (Dupl)	1.11	mg/L	SM 5310 C	1	0.50	2/7/99		2/8/99	7-0-513
			1.10	**mg/L**	**2.7 % RPD**						
604	TOX-ICR	TOX	50	µg Cl-/L	SM 5320 B	1	25	2/10/99		2/11/99	12-0-279
605	TOX-ICR	TOX (Dupl)	52	µg Cl-/L	SM 5320 B	1	25	2/10/99		2/11/99	12-0-279
			51	**µg Cl-/L**	**3.9 % RPD**						
606	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.8	%	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
607	THM-ICR	Bromodichloromethane	4.4	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
608	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
609	THM-ICR	Chloroform	5.7	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
610	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
611	UV-ICR	UV	0.013	1/cm	SM 5910 B	1	0.009	2/7/99		2/8/99	8-0-414
612	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	2/7/99		2/8/99	8-0-414
			0.013	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-23 **S&H ID:** 9901-80 **Date Sampled:** 2/9/99 12:34:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
613	Cl2Dose	Chlorine Dose	1.91	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/11/99		2/11/99	n/a
614	Cl2Res	Chlorine Residual	1.07	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/11/99		2/12/99	n/a
615	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	97.6	%	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
616	HAA-ICR	2-Bromopropionic acid (Surrogate)	100.4	%	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
617	HAA-ICR	Bromochloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
618	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
619	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/12/99	2/15/99	2/16/99	0-308-0
620	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
621	HAA-ICR	Dichloroacetic acid	3.0	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
622	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
623	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/12/99	2/15/99	2/16/99	0-308-0
624	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/12/99	2/15/99	2/16/99	0-308-0
625	HAA-ICR	Trichloroacetic acid	2.7	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
626	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/11/99		2/12/99	n/a
627	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/11/99		2/11/99	n/a
628	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	2/9/99		2/9/99	n/a
629	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/11/99		2/12/99	n/a
630	TEMP	Temperature	22.4	ºC	SM 2550 B	1	n/a	2/9/99		2/9/99	n/a
631	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/11/99		2/12/99	n/a
632	TOC-ICR	TOC	1.17	mg/L	SM 5310 C	1	0.50	2/9/99		2/9/99	7-0-514
633	TOC-ICR	TOC (Dupl)	1.19	mg/L	SM 5310 C	1	0.50	2/9/99		2/9/99	7-0-514
			1.18	**mg/L**	**1.7 % RPD**						
634	TOX-ICR	TOX	59	µg Cl-/L	SM 5320 B	1	25	2/12/99		2/15/99	12-0-281
635	TOX-ICR	TOX (Dupl)	61	µg Cl-/L	SM 5320 B	1	25	2/12/99		2/15/99	12-0-281
			60	**µg Cl-/L**	**3.3 % RPD**						
636	THM-ICR	1,2,3-Trichloropropane (Surrogate)	90.8	%	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
637	THM-ICR	Bromodichloromethane	4.5	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
638	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
639	THM-ICR	Chloroform	6.2	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
640	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
641	UV-ICR	UV	0.015	1/cm	SM 5910 B	1	0.009	2/9/99		2/10/99	8-0-415
642	UV-ICR	UV (Dupl)	0.015	1/cm	SM 5910 B	1	0.009	2/9/99		2/10/99	8-0-415
			0.015	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-24 **S&H ID:** 9901-81 **Date Sampled:** 2/10/99 2:59:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
643	Cl2Dose	Chlorine Dose	1.92	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/11/99		2/11/99	n/a
644	Cl2Res	Chlorine Residual	1.01	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/11/99		2/12/99	n/a
645	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	94.0	%	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
646	HAA-ICR	2-Bromopropionic acid (Surrogate)	101.2	%	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
647	HAA-ICR	Bromochloroacetic acid	2.0	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
648	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
649	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/12/99	2/15/99	2/16/99	0-308-0
650	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
651	HAA-ICR	Dichloroacetic acid	3.5	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
652	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
653	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/12/99	2/15/99	2/16/99	0-308-0
654	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/12/99	2/15/99	2/16/99	0-308-0
655	HAA-ICR	Trichloroacetic acid	2.9	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
656	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/11/99		2/12/99	n/a
657	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/11/99		2/11/99	n/a
658	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	2/10/99		2/10/99	n/a
659	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/11/99		2/12/99	n/a
660	TEMP	Temperature	22.7	ºC	SM 2550 B	1	n/a	2/10/99		2/10/99	n/a
661	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/11/99		2/12/99	n/a
662	TOC-ICR	TOC	1.19	mg/L	SM 5310 C	1	0.50	2/10/99		2/10/99	7-0-515
663	TOC-ICR	TOC (Dupl)	1.21	mg/L	SM 5310 C	1	0.50	2/10/99		2/10/99	7-0-515
			1.20	**mg/L**	**1.7 % RPD**						
664	TOX-ICR	TOX	60	µg Cl-/L	SM 5320 B	1	25	2/12/99		2/15/99	12-0-281
665	TOX-ICR	TOX (Dupl)	66	µg Cl-/L	SM 5320 B	1	25	2/12/99		2/15/99	12-0-281
			63	**µg Cl-/L**	**9.5 % RPD**						
666	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.4	%	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
667	THM-ICR	Bromodichloromethane	4.5	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
668	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
669	THM-ICR	Chloroform	6.3	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
670	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/14/99	0-307-0
671	UV-ICR	UV	0.015	1/cm	SM 5910 B	1	0.009	2/10/99		2/10/99	8-0-415
672	UV-ICR	UV (Dupl)	0.015	1/cm	SM 5910 B	1	0.009	2/10/99		2/10/99	8-0-415
			0.015	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-9d **S&H ID:** 9901-88 **Date Sampled:** 1/24/99 11:09:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
673	Cl2Dose	Chlorine Dose	1.65	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/27/99		1/27/99	n/a
674	Cl2Res	Chlorine Residual	0.96	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/27/99		1/28/99	n/a
675	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	95.2	%	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
676	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
677	HAA-ICR	Bromochloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
678	HAA-ICR	Bromodichloroacetic acid	1.1	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
679	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/28/99	2/10/99	2/10/99	0-305-0
680	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
681	HAA-ICR	Dichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
682	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
683	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/28/99	2/10/99	2/10/99	0-305-0
684	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/28/99	2/10/99	2/10/99	0-305-0
685	HAA-ICR	Trichloroacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
686	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/28/99	n/a
687	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/27/99	n/a
688	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	1/24/99		1/24/99	n/a
689	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	1/27/99		1/28/99	n/a
690	TEMP	Temperature	23.3	ºC	SM 2550 B	1	n/a	1/24/99		1/24/99	n/a
691	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	1/27/99		1/28/99	n/a
692	TOC-ICR	TOC	0.53	mg/L	SM 5310 C	1	0.50	1/24/99		1/25/99	7-0-503
693	TOC-ICR	TOC (Dupl)	0.54	mg/L	SM 5310 C	1	0.50	1/24/99		1/25/99	7-0-503
			0.54	**mg/L**	**1.9 % RPD**						
694	TOX-ICR	TOX	ND	µg Cl-/L	SM 5320 B	1	25	1/28/99		2/2/99	12-0-275
695	TOX-ICR	TOX (Dupl)	ND	µg Cl-/L	SM 5320 B	1	25	1/28/99		2/2/99	12-0-275
			ND	**µg Cl-/L**							
696	THM-ICR	1,2,3-Trichloropropane (Surrogate)	103.2	%	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
697	THM-ICR	Bromodichloromethane	1.2	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
698	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
699	THM-ICR	Chloroform	1.0	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
700	THM-ICR	Dibromochloromethane	1.1	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
701	UV-ICR	UV	ND	1/cm	SM 5910 B	1	0.009	1/24/99		1/25/99	8-0-404
702	UV-ICR	UV (Dupl)	ND	1/cm	SM 5910 B	1	0.009	1/24/99		1/25/99	8-0-404
			ND	**1/cm**							

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-19d **S&H ID:** 9901-90 **Date Sampled:** 2/1/99 1:11:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
703	Cl2Dose	Chlorine Dose	1.77	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/4/99		2/4/99	n/a
704	Cl2Res	Chlorine Residual	1.04	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/4/99		2/5/99	n/a
705	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	93.2	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
706	HAA-ICR	2-Bromopropionic acid (Surrogate)	97.6	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
707	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
708	HAA-ICR	Bromodichloroacetic acid	1.4	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
709	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
710	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
711	HAA-ICR	Dichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
712	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
713	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
714	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/5/99	2/10/99	2/11/99	0-305-0
715	HAA-ICR	Trichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
716	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/5/99	n/a
717	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/4/99	n/a
718	pH	pH	7.6	Unit	SM 4500-H+ B	1	n/a	2/1/99		2/1/99	n/a
719	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/4/99		2/5/99	n/a
720	TEMP	Temperature	22.3	ºC	SM 2550 B	1	n/a	2/1/99		2/1/99	n/a
721	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/4/99		2/5/99	n/a
722	TOC-ICR	TOC	0.85	mg/L	SM 5310 C	1	0.50	2/1/99		2/1/99	7-0-509
723	TOC-ICR	TOC (Dupl)	0.86	mg/L	SM 5310 C	1	0.50	2/1/99		2/1/99	7-0-509
			0.85	**mg/L**	**1.2 % RPD**						
724	TOX-ICR	TOX	38	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
725	TOX-ICR	TOX (Dupl)	37	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
			38	**µg Cl-/L**	**2.6 % RPD**						
726	THM-ICR	1,2,3-Trichloropropane (Surrogate)	98.4	%	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
727	THM-ICR	Bromodichloromethane	3.4	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
728	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
729	THM-ICR	Chloroform	3.4	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
730	THM-ICR	Dibromochloromethane	1.9	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
731	UV-ICR	UV	0.009	1/cm	SM 5910 B	1	0.009	2/1/99		2/2/99	8-0-411
732	UV-ICR	UV (Dupl)	0.009	1/cm	SM 5910 B	1	0.009	2/1/99		2/2/99	8-0-411
			0.009	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.20.Eff-22d **S&H ID:** 9901-91 **Date Sampled:** 2/7/99 6:03:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
733	Cl2Dose	Chlorine Dose	1.85	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/9/99		2/9/99	n/a
734	Cl2Res	Chlorine Residual	0.88	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/9/99		2/10/99	n/a
735	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	88.0	%	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
736	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.6	%	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
737	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
738	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
739	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/10/99	2/12/99	2/13/99	0-306-0
740	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
741	HAA-ICR	Dichloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
742	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
743	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/10/99	2/12/99	2/13/99	0-306-0
744	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/10/99	2/12/99	2/13/99	0-306-0
745	HAA-ICR	Trichloroacetic acid	2.6	µg/L	EPA 552.2	1	1.0	2/10/99	2/12/99	2/13/99	0-306-0
746	pH	Cl2 pH - Final	7.8	Unit	SM 4500-H+ B	1	n/a	2/9/99		2/10/99	n/a
747	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/9/99		2/9/99	n/a
748	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	2/7/99		2/7/99	n/a
749	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/9/99		2/10/99	n/a
750	TEMP	Temperature	22.6	ºC	SM 2550 B	1	n/a	2/7/99		2/7/99	n/a
751	TIME	Cl2 Incubation Time	24.2	hrs	n/a	1	n/a	2/9/99		2/10/99	n/a
752	TOC-ICR	TOC	1.12	mg/L	SM 5310 C	1	0.50	2/7/99		2/8/99	7-0-513
753	TOC-ICR	TOC (Dupl)	1.12	mg/L	SM 5310 C	1	0.50	2/7/99		2/8/99	7-0-513
			1.12	**mg/L**	**0.0 % RPD**						
754	TOX-ICR	TOX	52	µg Cl-/L	SM 5320 B	1	25	2/10/99		2/12/99	12-0-280
755	TOX-ICR	TOX (Dupl)	52	µg Cl-/L	SM 5320 B	1	25	2/10/99		2/12/99	12-0-280
			52	**µg Cl-/L**	**0.0 % RPD**						
756	THM-ICR	1,2,3-Trichloropropane (Surrogate)	86.4	%	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
757	THM-ICR	Bromodichloromethane	4.0	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
758	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
759	THM-ICR	Chloroform	5.5	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
760	THM-ICR	Dibromochloromethane	1.8	µg/L	EPA 551.1	1	1.0	2/10/99	2/14/99	2/14/99	0-307-0
761	UV-ICR	UV	0.013	1/cm	SM 5910 B	1	0.009	2/7/99		2/8/99	8-0-414
762	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	2/7/99		2/8/99	8-0-414
			0.013	**1/cm**	**0.0 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Sample ID: 205.Inf.A-1 **S&H ID:** 9901-98 **Date Sampled:** 1/10/99 7:20:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
763	ALK	Alkalinity	19	mg/L	SM 2320 B	1	5	1/10/99		1/11/99	1-0-40
764	ALK	Alkalinity (Dupl)	22	mg/L	SM 2320 B	1	5	1/10/99		1/11/99	1-0-40
			21	**mg/L**	**14.3 % RPD**						
765	NH3	Ammonia Nitrogen	ND	mg/L	EPA 350.1	1	0.05	1/10/99		1/28/99	MW91036
766	BR	Bromide	0.021	mg/L	EPA 300.0 A	1	0.020	1/10/99		1/28/99	MW91236
767	CaHardM	Calcium Hardness	17	mg/L CaCO3	EPA 200.7	1	5	1/10/99		1/28/99	MW n/a
768	CaMW	Calcium, Total, ICAP	7	mg/L	EPA 200.7	1	1	1/10/99	1/28/99	1/28/99	MW90976
769	MgMW	Magnesium, Total, ICAP	2	mg/L	EPA 200.7	1	0	1/10/99	1/28/99	1/28/99	MW90981
770	TotHard	Total Hardness as CaCO3 by ICP	27	mg/L CaCO3	SM 2340B	1	7	1/10/99		1/28/99	MW n/a

Sample ID: 205.Inf.A-2 **S&H ID:** 9901-99 **Date Sampled:** 2/4/99 8:40:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
771	ALK	Alkalinity	26	mg/L	SM 2320 B	1	5	2/4/99		2/4/99	1-0-41
772	ALK	Alkalinity (Dupl)	26	mg/L	SM 2320 B	1	5	2/4/99		2/4/99	1-0-41
			26	**mg/L**	**0.0 % RPD**						
773	NH3	Ammonia Nitrogen	0.06	mg/L	EPA 350.1	1	0.05			2/7/99	MW91959
774	CaHardM	Calcium Hardness	16	mg/L CaCO3	EPA 200.7	1	5			2/15/99	MW n/a
775	CaMW	Calcium, Total, ICAP	6	mg/L	EPA 200.7	1	1		2/15/99	2/15/99	MW91913
776	MgMW	Magnesium, Total, ICAP	2	mg/L	EPA 200.7	1	0		2/15/99	2/15/99	MW91916
777	TotHard	Total Hardness as CaCO3 by ICP	25	mg/L CaCO3	SM 2340B	1	7			2/15/99	MW n/a

Sample ID: 205.Inf.B-1 **S&H ID:** 9901-100 **Date Sampled:** 1/10/99 7:15:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
778	Cl2Dose	Chlorine Dose	2.70	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/15/99		1/15/99	n/a
779	Cl2Res	Chlorine Residual	0.93	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/15/99		1/16/99	n/a
780	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	110.0	%	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
781	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.8	%	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
782	HAA-ICR	Bromochloroacetic acid	2.5	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
783	HAA-ICR	Bromodichloroacetic acid	3.5	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
784	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/16/99	1/21/99	1/21/99	0-298-0
785	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
786	HAA-ICR	Dichloroacetic acid	8.4	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
787	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

788	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/16/99	1/21/99	1/21/99	0-298-0
789	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/16/99	1/21/99	1/21/99	0-298-0
790	HAA-ICR	Trichloroacetic acid	13.5	µg/L	EPA 552.2	1	1.0	1/16/99	1/21/99	1/21/99	0-298-0
791	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	1/15/99		1/16/99	n/a
792	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	1/15/99		1/15/99	n/a
793	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/10/99		1/10/99	n/a
794	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/15/99		1/16/99	n/a
795	TEMP	Temperature	20.4	ºC	SM 2550 B	1	n/a	1/10/99		1/10/99	n/a
796	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	1/15/99		1/16/99	n/a
797	TOC-ICR	TOC	2.35	mg/L	SM 5310 C	1	0.50	1/10/99		1/11/99	7-0-490
798	TOC-ICR	TOC (Dupl)	2.42	mg/L	SM 5310 C	1	0.50	1/10/99		1/11/99	7-0-490
			2.38	**mg/L**	**2.9 % RPD**						
799	TOX-ICR	TOX	125	µg Cl-/L	SM 5320 B	1	25	1/16/99		1/20/99	12-0-269
800	TOX-ICR	TOX (Dupl)	122	µg Cl-/L	SM 5320 B	1	25	1/16/99		1/20/99	12-0-269
			124	**µg Cl-/L**	**2.4 % RPD**						
801	THM-ICR	1,2,3-Trichloropropane (Surrogate)	101.2	%	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
802	THM-ICR	Bromodichloromethane	6.2	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
803	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
804	THM-ICR	Chloroform	15.9	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
805	THM-ICR	Dibromochloromethane	1.3	µg/L	EPA 551.1	1	1.0	1/16/99	1/21/99	1/22/99	0-299-0
806	TURB	Turbidity	0.15	ntu	SM 2130 B	1	0.05	1/10/99		1/10/99	9-0-22
807	UV-ICR	UV	0.031	1/cm	SM 5910 B	1	0.009	1/10/99		1/11/99	8-0-392
808	UV-ICR	UV (Dupl)	0.031	1/cm	SM 5910 B	1	0.009	1/10/99		1/11/99	8-0-392
			0.031	**1/cm**	**0.0 % RPD**						

Sample ID: 205.Inf.B-2 **S&H ID:** 9901-101 **Date Sampled:** 1/17/99 10:30:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
809	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/17/99		1/17/99	n/a
810	TEMP	Temperature	17.9	ºC	SM 2550 B	1	n/a	1/17/99		1/17/99	n/a
811	TOC-ICR	TOC	2.03	mg/L	SM 5310 C	1	0.50	1/17/99		1/17/99	7-0-496
812	TOC-ICR	TOC (Dupl)	2.02	mg/L	SM 5310 C	1	0.50	1/17/99		1/17/99	7-0-496
			2.02	**mg/L**	**0.5 % RPD**						

Sample ID: 205.Inf.B-3 **S&H ID:** 9901-102 **Date Sampled:** 1/23/99 12:45:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
813	pH	pH	7.9	Unit	SM 4500-H+ B	1	n/a	1/23/99		1/23/99	n/a
814	TEMP	Temperature	18.4	ºC	SM 2550 B	1	n/a	1/23/99		1/23/99	n/a
815	TOC-ICR	TOC	2.04	mg/L	SM 5310 C	1	0.50	1/23/99		1/23/99	7-0-501

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

816	TOC-ICR	TOC (Dupl)	2.09	mg/L	SM 5310 C	1	0.50	1/23/99		1/23/99	7-0-501
			2.06	**mg/L**	**2.4 % RPD**						

Sample ID: 205.Inf.B-4 **S&H ID:** 9901-103 **Date Sampled:** 2/2/99 11:25:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
817	Cl2Dose	Chlorine Dose	2.70	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/4/99		2/4/99	n/a
818	Cl2Res	Chlorine Residual	1.27	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/4/99		2/5/99	n/a
819	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	96.0	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
820	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.0	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
821	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
822	HAA-ICR	Bromodichloroacetic acid	1.8	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
823	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
824	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
825	HAA-ICR	Dichloroacetic acid	6.1	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
826	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
827	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
828	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/5/99	2/10/99	2/11/99	0-305-0
829	HAA-ICR	Trichloroacetic acid	5.9	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
830	pH	Cl2 pH - Final	7.8	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/5/99	n/a
831	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/4/99	n/a
832	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/2/99	n/a
833	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/4/99		2/5/99	n/a
834	TEMP	Temperature	19.1	ºC	SM 2550 B	1	n/a	2/2/99		2/2/99	n/a
835	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/4/99		2/5/99	n/a
836	TOC-ICR	TOC	2.04	mg/L	SM 5310 C	1	0.50	2/2/99		2/2/99	7-0-510
837	TOC-ICR	TOC (Dupl)	2.00	mg/L	SM 5310 C	1	0.50	2/2/99		2/2/99	7-0-510
			2.02	**mg/L**	**2.0 % RPD**						
838	TOX-ICR	TOX	122	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
839	TOX-ICR	TOX (Dupl)	117	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
			120	**µg Cl-/L**	**4.2 % RPD**						
840	THM-ICR	1,2,3-Trichloropropane (Surrogate)	107.2	%	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
841	THM-ICR	Bromodichloromethane	5.9	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
842	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
843	THM-ICR	Chloroform	14.6	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
844	THM-ICR	Dibromochloromethane	1.4	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
845	TURB	Turbidity	0.15	ntu	SM 2130 B	1	0.05	2/2/99		2/2/99	9-0-23
846	UV-ICR	UV	0.029	1/cm	SM 5910 B	1	0.009	2/2/99		2/3/99	8-0-412
847	UV-ICR	UV (Dupl)	0.029	1/cm	SM 5910 B	1	0.009	2/2/99		2/3/99	8-0-412

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

0.029	**1/cm**	**0.0 % RPD**

Sample ID: 205.Inf.B-5 **S&H ID:** 9901-104 **Date Sampled:** 2/8/99 2:08:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
848	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	2/8/99		2/8/99	n/a
849	TEMP	Temperature	20.6	ºC	SM 2550 B	1	n/a	2/8/99		2/8/99	n/a
850	TOC-ICR	TOC	2.08	mg/L	SM 5310 C	1	0.50	2/8/99		2/9/99	7-0-514
851	TOC-ICR	TOC (Dupl)	2.02	mg/L	SM 5310 C	1	0.50	2/8/99		2/9/99	7-0-514
			2.05	**mg/L**	**2.9 % RPD**						

Sample ID: 205.Inf.B-6 **S&H ID:** 9901-105 **Date Sampled:** 2/10/99 2:00:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
852	Cl2Dose	Chlorine Dose	2.40	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/11/99		2/11/99	n/a
853	Cl2Res	Chlorine Residual	1.00	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/11/99		2/12/99	n/a
854	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	84.8	%	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
855	HAA-ICR	2-Bromopropionic acid (Surrogate)	104.0	%	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
856	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
857	HAA-ICR	Bromodichloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
858	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/12/99	2/15/99	2/16/99	0-308-0
859	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
860	HAA-ICR	Dichloroacetic acid	6.8	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
861	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
862	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/12/99	2/15/99	2/16/99	0-308-0
863	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/12/99	2/15/99	2/16/99	0-308-0
864	HAA-ICR	Trichloroacetic acid	6.1	µg/L	EPA 552.2	1	1.0	2/12/99	2/15/99	2/16/99	0-308-0
865	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/11/99		2/12/99	n/a
866	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/11/99		2/11/99	n/a
867	pH	pH	7.9	Unit	SM 4500-H+ B	1	n/a	2/10/99		2/10/99	n/a
868	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/11/99		2/12/99	n/a
869	TEMP	Temperature	19.1	ºC	SM 2550 B	1	n/a	2/10/99		2/10/99	n/a
870	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/11/99		2/12/99	n/a
871	TOC-ICR	TOC	1.95	mg/L	SM 5310 C	1	0.50	2/10/99		2/10/99	7-0-515
872	TOC-ICR	TOC (Dupl)	1.96	mg/L	SM 5310 C	1	0.50	2/10/99		2/10/99	7-0-515
			1.96	**mg/L**	**0.5 % RPD**						
873	TOX-ICR	TOX	120	µg Cl-/L	SM 5320 B	1	25	2/12/99		2/15/99	12-0-281
874	TOX-ICR	TOX (Dupl)	121	µg Cl-/L	SM 5320 B	1	25	2/12/99		2/15/99	12-0-281
			121	**µg Cl-/L**	**0.8 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
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875	THM-ICR	1,2,3-Trichloropropane (Surrogate)	94.8	%	EPA 551.1	1	1.0	2/12/99	2/14/99	2/15/99	0-307-0
876	THM-ICR	Bromodichloromethane	5.5	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/15/99	0-307-0
877	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/15/99	0-307-0
878	THM-ICR	Chloroform	13.2	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/15/99	0-307-0
879	THM-ICR	Dibromochloromethane	1.2	µg/L	EPA 551.1	1	1.0	2/12/99	2/14/99	2/15/99	0-307-0
880	TURB	Turbidity	0.10	ntu	SM 2130 B	1	0.05	2/10/99		2/10/99	9-0-23
881	UV-ICR	UV	0.029	1/cm	SM 5910 B	1	0.009	2/10/99		2/10/99	8-0-415
882	UV-ICR	UV (Dupl)	0.029	1/cm	SM 5910 B	1	0.009	2/10/99		2/10/99	8-0-415
			0.029	**1/cm**	**0.0 % RPD**						

Sample ID: 205.10.Eff-31 **S&H ID:** 9901-222 **Date Sampled:** 1/21/99 12:40:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
883	Cl2Dose	Chlorine Dose	1.89	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/22/99		1/22/99	n/a
884	Cl2Res	Chlorine Residual	1.02	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/22/99		1/23/99	n/a
885	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	82.4	%	EPA 552.2	1	1.0	1/23/99	1/28/99	1/28/99	0-300-0
886	HAA-ICR	2-Bromopropionic acid (Surrogate)	91.6	%	EPA 552.2	1	1.0	1/23/99	1/28/99	1/28/99	0-300-0
887	HAA-ICR	Bromochloroacetic acid	1.3	µg/L	EPA 552.2	1	1.0	1/23/99	1/28/99	1/28/99	0-300-0
888	HAA-ICR	Bromodichloroacetic acid	1.2	µg/L	EPA 552.2	1	1.0	1/23/99	1/28/99	1/28/99	0-300-0
889	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/23/99	1/28/99	1/28/99	0-300-0
890	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/23/99	1/28/99	1/28/99	0-300-0
891	HAA-ICR	Dichloroacetic acid	2.2	µg/L	EPA 552.2	1	1.0	1/23/99	1/28/99	1/28/99	0-300-0
892	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/23/99	1/28/99	1/28/99	0-300-0
893	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/23/99	1/28/99	1/28/99	0-300-0
894	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/23/99	1/28/99	1/28/99	0-300-0
895	HAA-ICR	Trichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	1/23/99	1/28/99	1/28/99	0-300-0
896	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	1/22/99		1/23/99	n/a
897	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/22/99		1/22/99	n/a
898	pH	pH	7.7	Unit	SM 4500-H+ B	1	n/a	1/21/99		1/21/99	n/a
899	TEMP	Cl2 Temperature	8.6	ºC	SM 2550 B	1	n/a	1/22/99		1/23/99	n/a
900	TEMP	Temperature	21.4	ºC	SM 2550 B	1	n/a	1/21/99		1/21/99	n/a
901	TIME	Cl2 Incubation Time	23.5	hrs	n/a	1	n/a	1/22/99		1/23/99	n/a
902	TOC-ICR	TOC	1.11	mg/L	SM 5310 C	1	0.50	1/21/99		1/21/99	7-0-499
903	TOC-ICR	TOC (Dupl)	1.11	mg/L	SM 5310 C	1	0.50	1/21/99		1/21/99	7-0-499
			1.11	**mg/L**	**0.0 % RPD**						
904	TOX-ICR	TOX	51	µg Cl-/L	SM 5320 B	1	25	1/23/99		1/25/99	12-0-271
905	TOX-ICR	TOX (Dupl)	52	µg Cl-/L	SM 5320 B	1	25	1/23/99		1/25/99	12-0-271
			52	**µg Cl-/L**	**1.9 % RPD**						

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

906	THM-ICR	1,2,3-Trichloropropane (Surrogate)	92.4	%	EPA 551.1	1	1.0	1/23/99	2/1/99	2/1/99	0-301-0
907	THM-ICR	Bromodichloromethane	4.1	µg/L	EPA 551.1	1	1.0	1/23/99	2/1/99	2/1/99	0-301-0
908	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/23/99	2/1/99	2/1/99	0-301-0
909	THM-ICR	Chloroform	4.9	µg/L	EPA 551.1	1	1.0	1/23/99	2/1/99	2/1/99	0-301-0
910	THM-ICR	Dibromochloromethane	1.8	µg/L	EPA 551.1	1	1.0	1/23/99	2/1/99	2/1/99	0-301-0
911	UV-ICR	UV	0.013	1/cm	SM 5910 B	1	0.009	1/21/99		1/22/99	8-0-399
912	UV-ICR	UV (Dupl)	0.013	1/cm	SM 5910 B	1	0.009	1/21/99		1/22/99	8-0-399
			0.013	**1/cm**	**0.0 % RPD**						

Sample ID: 205.10.Eff-33 **S&H ID:** 9901-224 **Date Sampled:** 1/23/99 7:24:00 PM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
913	Cl2Dose	Chlorine Dose	1.94	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/26/99		1/26/99	n/a
914	Cl2Res	Chlorine Residual	1.04	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/26/99		1/27/99	n/a
915	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	85.6	%	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
916	HAA-ICR	2-Bromopropionic acid (Surrogate)	98.4	%	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
917	HAA-ICR	Bromochloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
918	HAA-ICR	Bromodichloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
919	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/27/99	1/28/99	1/28/99	0-300-0
920	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
921	HAA-ICR	Dichloroacetic acid	3.0	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
922	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
923	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/27/99	1/28/99	1/28/99	0-300-0
924	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/27/99	1/28/99	1/28/99	0-300-0
925	HAA-ICR	Trichloroacetic acid	2.8	µg/L	EPA 552.2	1	1.0	1/27/99	1/28/99	1/28/99	0-300-0
926	pH	Cl2 pH - Final	7.6	Unit	SM 4500-H+ B	1	n/a	1/26/99		1/27/99	n/a
927	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/26/99		1/26/99	n/a
928	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/23/99		1/23/99	n/a
929	TEMP	Cl2 Temperature	8.7	ºC	SM 2550 B	1	n/a	1/26/99		1/27/99	n/a
930	TEMP	Temperature	21.6	ºC	SM 2550 B	1	n/a	1/23/99		1/23/99	n/a
931	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	1/26/99		1/27/99	n/a
932	TOC-ICR	TOC	1.21	mg/L	SM 5310 C	1	0.50	1/23/99		1/24/99	7-0-502
933	TOC-ICR	TOC (Dupl)	1.25	mg/L	SM 5310 C	1	0.50	1/23/99		1/24/99	7-0-502
			1.23	**mg/L**	**3.3 % RPD**						
934	TOX-ICR	TOX	59	µg Cl-/L	SM 5320 B	1	25	1/27/99		1/28/99	12-0-272
935	TOX-ICR	TOX (Dupl)	65	µg Cl-/L	SM 5320 B	1	25	1/27/99		1/28/99	12-0-272
			62	**µg Cl-/L**	**9.7 % RPD**						
936	THM-ICR	1,2,3-Trichloropropane (Surrogate)	114.0	%	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

937	THM-ICR	Bromodichloromethane	6.5	µg/L	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
938	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
939	THM-ICR	Chloroform	9.5	µg/L	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
940	THM-ICR	Dibromochloromethane	2.4	µg/L	EPA 551.1	1	1.0	1/27/99	2/3/99	2/3/99	0-302-0
941	UV-ICR	UV	0.015	1/cm	SM 5910 B	1	0.009	1/23/99		1/24/99	8-0-403
942	UV-ICR	UV (Dupl)	0.016	1/cm	SM 5910 B	1	0.009	1/23/99		1/24/99	8-0-403
			0.016	**1/cm**	**6.3 % RPD**						

Sample ID: 205.10.Eff-37 **S&H ID:** 9901-228 **Date Sampled:** 1/26/99 11:32:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
943	Cl2Dose	Chlorine Dose	1.95	mg/L as Cl2	SM 4500-Cl B	1	n/a	1/27/99		1/27/99	n/a
944	Cl2Res	Chlorine Residual	0.96	mg/L as Cl2	SM 4500-Cl F	1	0.10	1/27/99		1/28/99	n/a
945	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	104.4	%	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
946	HAA-ICR	2-Bromopropionic acid (Surrogate)	94.0	%	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
947	HAA-ICR	Bromochloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
948	HAA-ICR	Bromodichloroacetic acid	1.9	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
949	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/28/99	2/10/99	2/10/99	0-305-0
950	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
951	HAA-ICR	Dichloroacetic acid	3.4	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
952	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
953	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	1/28/99	2/10/99	2/10/99	0-305-0
954	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	1/28/99	2/10/99	2/10/99	0-305-0
955	HAA-ICR	Trichloroacetic acid	3.3	µg/L	EPA 552.2	1	1.0	1/28/99	2/10/99	2/10/99	0-305-0
956	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/28/99	n/a
957	pH	Cl2 pH - Initial	7.6	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/27/99	n/a
958	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/26/99		1/26/99	n/a
959	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	1/27/99		1/28/99	n/a
960	TEMP	Temperature	21.7	ºC	SM 2550 B	1	n/a	1/26/99		1/26/99	n/a
961	TIME	Cl2 Incubation Time	24.1	hrs	n/a	1	n/a	1/27/99		1/28/99	n/a
962	TOC-ICR	TOC	1.37	mg/L	SM 5310 C	1	0.50	1/26/99		1/26/99	7-0-504
963	TOC-ICR	TOC (Dupl)	1.37	mg/L	SM 5310 C	1	0.50	1/26/99		1/26/99	7-0-504
			1.37	**mg/L**	**0.0 % RPD**						
964	TOX-ICR	TOX	72	µg Cl-/L	SM 5320 B	1	25	1/28/99		2/1/99	12-0-274
965	TOX-ICR	TOX (Dupl)	74	µg Cl-/L	SM 5320 B	1	25	1/28/99		2/1/99	12-0-274
			73	**µg Cl-/L**	**2.7 % RPD**						
966	THM-ICR	1,2,3-Trichloropropane (Surrogate)	106.0	%	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
967	THM-ICR	Bromodichloromethane	6.5	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
968	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

969	THM-ICR	Chloroform	10.5	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
970	THM-ICR	Dibromochloromethane	2.3	µg/L	EPA 551.1	1	1.0	1/28/99	2/3/99	2/3/99	0-302-0
971	UV-ICR	UV	0.019	1/cm	SM 5910 B	1	0.009	1/26/99		1/26/99	8-0-407
972	UV-ICR	UV (Dupl)	0.019	1/cm	SM 5910 B	1	0.009	1/26/99		1/26/99	8-0-407
			0.019	**1/cm**	**0.0 % RPD**						

Sample ID: 205.10.Eff-38 **S&H ID:** 9901-229 **Date Sampled:** 1/27/99 6:21:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
973	Cl2Dose	Chlorine Dose	1.99	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/2/99		2/2/99	n/a
974	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/2/99		2/3/99	n/a
975	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	92.4	%	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
976	HAA-ICR	2-Bromopropionic acid (Surrogate)	96.0	%	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
977	HAA-ICR	Bromochloroacetic acid	1.5	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
978	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
979	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/3/99	2/10/99	2/11/99	0-305-0
980	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
981	HAA-ICR	Dichloroacetic acid	3.5	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
982	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
983	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/3/99	2/10/99	2/11/99	0-305-0
984	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/3/99	2/10/99	2/11/99	0-305-0
985	HAA-ICR	Trichloroacetic acid	3.1	µg/L	EPA 552.2	1	1.0	2/3/99	2/10/99	2/11/99	0-305-0
986	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/3/99	n/a
987	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/2/99		2/2/99	n/a
988	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	1/27/99		1/27/99	n/a
989	TEMP	Cl2 Temperature	8.9	ºC	SM 2550 B	1	n/a	2/2/99		2/3/99	n/a
990	TEMP	Temperature	21.9	ºC	SM 2550 B	1	n/a	1/27/99		1/27/99	n/a
991	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/2/99		2/3/99	n/a
992	TOC-ICR	TOC	1.44	mg/L	SM 5310 C	1	0.50	1/27/99		1/28/99	7-0-506
993	TOC-ICR	TOC (Dupl)	1.42	mg/L	SM 5310 C	1	0.50	1/27/99		1/28/99	7-0-506
			1.43	**mg/L**	**1.4 % RPD**						
994	TOX-ICR	TOX	74	µg Cl-/L	SM 5320 B	1	25	2/3/99		2/8/99	12-0-277
995	TOX-ICR	TOX (Dupl)	75	µg Cl-/L	SM 5320 B	1	25	2/3/99		2/8/99	12-0-277
			75	**µg Cl-/L**	**1.3 % RPD**						
996	THM-ICR	1,2,3-Trichloropropane (Surrogate)	102.8	%	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
997	THM-ICR	Bromodichloromethane	5.2	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
998	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
999	THM-ICR	Chloroform	8.3	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0
1000	THM-ICR	Dibromochloromethane	1.8	µg/L	EPA 551.1	1	1.0	2/3/99	2/8/99	2/8/99	0-304-0

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

1001	UV-ICR	UV	0.018	1/cm	SM 5910 B	1	0.009	1/27/99		1/28/99	8-0-408
1002	UV-ICR	UV (Dupl)	0.018	1/cm	SM 5910 B	1	0.009	1/27/99		1/28/99	8-0-408
			0.018	**1/cm**	**0.0 % RPD**						

Sample ID: 205.10.Eff-40 **S&H ID:** 9901-231 **Date Sampled:** 2/1/99 8:07:00 AM

#	Analysis	Type	Result	Units	Method	Dilution	MRL	Samp.	Prep.	Anal.	QC Batch
1003	Cl2Dose	Chlorine Dose	2.02	mg/L as Cl2	SM 4500-Cl B	1	n/a	2/4/99		2/4/99	n/a
1004	Cl2Res	Chlorine Residual	0.99	mg/L as Cl2	SM 4500-Cl F	1	0.10	2/4/99		2/5/99	n/a
1005	HAA-ICR	1,2,3-Trichloropropane (IS) (Internal Standard)	87.2	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
1006	HAA-ICR	2-Bromopropionic acid (Surrogate)	99.2	%	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
1007	HAA-ICR	Bromochloroacetic acid	1.6	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
1008	HAA-ICR	Bromodichloroacetic acid	1.7	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
1009	HAA-ICR	Chlorodibromoacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
1010	HAA-ICR	Dibromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
1011	HAA-ICR	Dichloroacetic acid	3.9	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
1012	HAA-ICR	Monobromoacetic acid	ND	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
1013	HAA-ICR	Monochloroacetic acid	ND	µg/L	EPA 552.2	1	2.0	2/5/99	2/10/99	2/11/99	0-305-0
1014	HAA-ICR	Tribromoacetic acid	ND	µg/L	EPA 552.2	1	4.0	2/5/99	2/10/99	2/11/99	0-305-0
1015	HAA-ICR	Trichloroacetic acid	3.7	µg/L	EPA 552.2	1	1.0	2/5/99	2/10/99	2/11/99	0-305-0
1016	pH	Cl2 pH - Final	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/5/99	n/a
1017	pH	Cl2 pH - Initial	7.7	Unit	SM 4500-H+ B	1	n/a	2/4/99		2/4/99	n/a
1018	pH	pH	7.8	Unit	SM 4500-H+ B	1	n/a	2/1/99		2/1/99	n/a
1019	TEMP	Cl2 Temperature	8.8	ºC	SM 2550 B	1	n/a	2/4/99		2/5/99	n/a
1020	TEMP	Temperature	21.8	ºC	SM 2550 B	1	n/a	2/1/99		2/1/99	n/a
1021	TIME	Cl2 Incubation Time	24.0	hrs	n/a	1	n/a	2/4/99		2/5/99	n/a
1022	TOC-ICR	TOC	1.47	mg/L	SM 5310 C	1	0.50	2/1/99		2/1/99	7-0-509
1023	TOC-ICR	TOC (Dupl)	1.52	mg/L	SM 5310 C	1	0.50	2/1/99		2/1/99	7-0-509
			1.50	**mg/L**	**3.3 % RPD**						
1024	TOX-ICR	TOX	85	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
1025	TOX-ICR	TOX (Dupl)	81	µg Cl-/L	SM 5320 B	1	25	2/5/99		2/9/99	12-0-278
			83	**µg Cl-/L**	**4.8 % RPD**						
1026	THM-ICR	1,2,3-Trichloropropane (Surrogate)	100.8	%	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
1027	THM-ICR	Bromodichloromethane	5.3	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
1028	THM-ICR	Bromoform	ND	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
1029	THM-ICR	Chloroform	9.2	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
1030	THM-ICR	Dibromochloromethane	1.8	µg/L	EPA 551.1	1	1.0	2/5/99	2/8/99	2/8/99	0-304-0
1031	UV-ICR	UV	0.020	1/cm	SM 5910 B	1	0.009	2/1/99		2/2/99	8-0-411
1032	UV-ICR	UV (Dupl)	0.020	1/cm	SM 5910 B	1	0.009	2/1/99		2/2/99	8-0-411

ND (non-detect): Result is below mininum reporting level (MRL). NR (not reportable): Result did not meet QC criteria.

Laboratory Test Results

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

0.020	**1/cm**	**0.0 % RPD**

End of laboratory test results

Summers & Hooper, Inc.
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Quality Control Report

Mr. Doug Robbins
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Study#: 205
Study Title: ICR RSSCT #4

Analysis: ALK (Alkalinity) **Method:** SM 2320 B

QC Batch ID: 1-0-40

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	100	97	mg/L	97%		01/11/99	9901-98	5		
Matrix Spike (Dupl)	Matrix Spike	100	99	mg/L	99%		01/11/99	9901-98	5		
		100	**98**	**mg/L**	**98%**	**2.0 %**					
Method Blank	Method Blank		ND*	mg/L			01/11/99	9901-106	5		
Standard	Standard	100	102	mg/L	102%		01/11/99	9901-107	5		
Standard (Dupl)	Standard	100	102	mg/L	102%		01/11/99	9901-107	5		
		100	**102**	**mg/L**	**102%**	**0.0 %**					
Matrix Spike	Matrix Spike	100	100	mg/L	100%		01/20/99	9901-206	5		
Matrix Spike (Dupl)	Matrix Spike	100	97	mg/L	97%		01/20/99	9901-206	5		
		100	**98**	**mg/L**	**98%**	**3.1 %**					
Method Blank	Method Blank		ND*	mg/L			01/20/99	9901-219	5		
Standard	Standard	100	98	mg/L	98%		01/20/99	9901-220	5		
Standard (Dupl)	Standard	100	100	mg/L	100%		01/20/99	9901-220	5		
		100	**99**	**mg/L**	**99%**	**2.0 %**					

Analysis: ALK (Alkalinity) **Method:** SM 2320 B

QC Batch ID: 1-0-41

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	100	97	mg/L	97%		01/29/99	9901-207	5		
Matrix Spike (Dupl)	Matrix Spike	100	97	mg/L	97%		01/29/99	9901-207	5		
		100	**97**	**mg/L**	**97%**	**0.0 %**					
Method Blank	Method Blank		ND*	mg/L			01/29/99	9901-329	5		
Standard	Standard	100	98	mg/L	98%		01/29/99	9901-330	5		
Standard (Dupl)	Standard	100	100	mg/L	100%		01/29/99	9901-330	5		
		100	**98**	**mg/L**	**98%**	**2.0 %**					
Matrix Spike	Matrix Spike	100	97	mg/L	97%		02/04/99	9901-99	5		
Matrix Spike (Dupl)	Matrix Spike	100	98	mg/L	98%		02/04/99	9901-99	5		
		100	**98**	**mg/L**	**98%**	**1.0 %**					
Method Blank	Method Blank		ND*	mg/L			02/04/99	9902-24	5		
Standard	Standard	100	98	mg/L	98%		02/04/99	9902-25	5		
Standard (Dupl)	Standard	100	100	mg/L	100%		02/04/99	9902-25	5		
		100	**99**	**mg/L**	**99%**	**2.0 %**					

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Study#: 205
Study Title: ICR RSSCT #4

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-488

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.15	mg/L	104%		9901-7	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.19	mg/L	105%		9901-7	0.5		
		4.00	**4.17**	**mg/L**	**104%**	**1.0 %**				
Method Blank	Method Blank		ND*	mg/L			9901-6	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-6	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9901-4	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.93	mg/L	98%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9901-3	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**2.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-489

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.10	mg/L	102%		9901-221	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.22	mg/L	105%		9901-221	0.5		
		4.00	**4.16**	**mg/L**	**104%**	**2.9 %**				
Method Blank	Method Blank		ND*	mg/L			9901-12	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-12	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.55	mg/L	110%		9901-4	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**3.7 %**			50-150%	20%
Standard	Standard	4.00	4.05	mg/L	101%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.06	mg/L	101%		9901-3	0.5	90-110%	
		4.00	**4.05**	**mg/L**	**101%**	**0.2 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-490

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.98	mg/L	100%		9901-58	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.02	mg/L	100%		9901-58	0.5		
		4.00	**4.00**	**mg/L**	**100%**	**0.7 %**				
Method Blank	Method Blank		ND*	mg/L			9901-108	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-108	0.5		
			ND*	**mg/L**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.50	0.54	mg/L	108%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.50	mg/L	100%		9901-4	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**7.7 %**			50-150%	20%
Standard	Standard	4.00	3.91	mg/L	98%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.93	mg/L	98%		9901-3	0.5	90-110%	
		4.00	**3.92**	**mg/L**	**98%**	**0.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-495

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.98	mg/L	100%		9901-32	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.98	mg/L	100%		9901-32	0.5		
		4.00	**3.98**	**mg/L**	**100%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9901-120	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-120	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.47	mg/L	94%		9901-4	0.5	50-150%	
		0.50	**0.49**	**mg/L**	**98%**	**6.1 %**			50-150%	20%
Standard	Standard	4.00	3.92	mg/L	98%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.94	mg/L	98%		9901-3	0.5	90-110%	
		4.00	**3.93**	**mg/L**	**98%**	**0.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-496

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.04	mg/L	101%		9901-35	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.12	mg/L	103%		9901-35	0.5		
		4.00	**4.08**	**mg/L**	**102%**	**2.0 %**				
Method Blank	Method Blank		ND*	mg/L			9901-121	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-121	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.51	mg/L	102%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.49	mg/L	98%		9901-4	0.5	50-150%	
		0.50	**0.50**	**mg/L**	**100%**	**4.0 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9901-3	0.5	90-110%	
		4.00	**3.97**	**mg/L**	**99%**	**0.3 %**			90-110%	10%
Standard	Standard	10.00	10.09	mg/L	101%		9901-114	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.01	mg/L	100%		9901-114	0.5	90-110%	
		10.00	**10.05**	**mg/L**	**101%**	**0.8 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-498

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.77	mg/L	94%		9901-126	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.79	mg/L	95%		9901-126	0.5		
		4.00	**3.78**	**mg/L**	**94%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9901-218	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-218	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.51	mg/L	102%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9901-4	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.93	mg/L	98%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9901-3	0.5	90-110%	
		4.00	**3.95**	**mg/L**	**99%**	**1.0 %**			90-110%	10%
Standard	Standard	10.00	9.97	mg/L	100%		9901-114	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.07	mg/L	101%		9901-114	0.5	90-110%	
		10.00	**10.02**	**mg/L**	**100%**	**1.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-499

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	4.25	mg/L	106%		9901-128	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.36	mg/L	109%		9901-128	0.5		
		4.00	**4.30**	**mg/L**	**108%**	**2.6 %**				
Method Blank	Method Blank		ND*	mg/L			9901-248	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-248	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.50	mg/L	100%		9901-4	0.5	50-150%	
		0.50	**0.50**	**mg/L**	**100%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	4.00	mg/L	100%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.07	mg/L	102%		9901-3	0.5	90-110%	
		4.00	**4.04**	**mg/L**	**101%**	**1.7 %**			90-110%	10%
Standard	Standard	10.00	10.03	mg/L	100%		9901-114	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.10	mg/L	101%		9901-114	0.5	90-110%	
		10.00	**10.07**	**mg/L**	**101%**	**0.7 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-501

QC Type	Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Matrix Spike	Matrix Spike	4.00	4.01	mg/L	100%		9901-140	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.02	mg/L	100%		9901-140	0.5		
		4.00	**4.01**	**mg/L**	**100%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9901-279	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-279	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.52	mg/L	104%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.50	mg/L	100%		9901-4	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**3.9 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9901-3	0.5	90-110%	
		4.00	**3.97**	**mg/L**	**99%**	**0.0 %**			90-110%	10%
Standard	Standard	10.00	10.03	mg/L	100%		9901-114	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.20	mg/L	102%		9901-114	0.5	90-110%	
		10.00	**10.12**	**mg/L**	**101%**	**1.7 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-502

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9901-224	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.94	mg/L	98%		9901-224	0.5		
		4.00	**3.97**	**mg/L**	**99%**	**1.3 %**				
Method Blank	Method Blank		ND*	mg/L			9901-281	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-281	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.48	mg/L	96%		9901-4	0.5	50-150%	
		0.50	**0.49**	**mg/L**	**98%**	**4.1 %**			50-150%	20%
Standard	Standard	4.00	3.87	mg/L	97%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9901-3	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**4.3 %**			90-110%	10%
Standard	Standard	10.00	10.02	mg/L	100%		9901-114	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.12	mg/L	101%		9901-114	0.5	90-110%	
		10.00	**10.07**	**mg/L**	**101%**	**1.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-503

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.98	mg/L	100%		9901-148	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.05	mg/L	101%		9901-148	0.5		
		4.00	**4.01**	**mg/L**	**100%**	**1.7 %**				
Method Blank	Method Blank		ND*	mg/L			9901-283	0.5		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-283	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.57	mg/L	114%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9901-4	0.5	50-150%	
		0.50	**0.54**	**mg/L**	**108%**	**9.3 %**			50-150%	20%
Standard	Standard	4.00	3.96	mg/L	99%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.00	mg/L	100%		9901-3	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**1.0 %**			90-110%	10%
Standard	Standard	10.00	10.01	mg/L	100%		9901-114	0.5	90-110%	
Standard (Dupl)	Standard	10.00	10.15	mg/L	102%		9901-114	0.5	90-110%	
		10.00	**10.08**	**mg/L**	**101%**	**1.4 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-504

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.01	mg/L	100%		9901-69	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.96	mg/L	99%		9901-69	0.5		
		4.00	**3.98**	**mg/L**	**100%**	**1.3 %**				
Method Blank	Method Blank		ND*	mg/L			9901-290	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-290	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.51	mg/L	102%		9901-4	0.5	50-150%	
		0.50	**0.52**	**mg/L**	**104%**	**3.8 %**			50-150%	20%
Standard	Standard	4.00	3.95	mg/L	99%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.06	mg/L	101%		9901-3	0.5	90-110%	
		4.00	**4.00**	**mg/L**	**100%**	**2.7 %**			90-110%	10%
Standard	Standard	10.00	9.86	mg/L	99%		9901-114	0.5	90-110%	
Standard (Dupl)	Standard	10.00	9.97	mg/L	100%		9901-114	0.5	90-110%	
		10.00	**9.91**	**mg/L**	**99%**	**1.1 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-506

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.05	mg/L	101%		9901-154	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.09	mg/L	102%		9901-154	0.5		
		4.00	**4.07**	**mg/L**	**102%**	**1.0 %**				
Method Blank	Method Blank		ND*	mg/L			9901-316	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-316	0.5		
			ND*	**mg/L**						
Standard	Standard	0.20	0.26	mg/L	130%		9901-294	0.5	50-150%	
Standard (Dupl)	Standard	0.20	ND	mg/L	#Error		9901-294	0.5	50-150%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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		0.20	**0.25**	**mg/L**	**125%**	**8.0 %**			50-150%	20%
Standard	Standard	0.50	0.50	mg/L	100%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9901-4	0.5	50-150%	
		0.50	**0.51**	**mg/L**	**102%**	**3.9 %**			50-150%	20%
Standard	Standard	4.00	4.03	mg/L	101%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.03	mg/L	101%		9901-3	0.5	90-110%	
		4.00	**4.03**	**mg/L**	**101%**	**0.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-507

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	3.97	mg/L	99%		9901-73	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.98	mg/L	100%		9901-73	0.5		
		4.00	**3.97**	**mg/L**	**99%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9901-328	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-328	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.49	mg/L	98%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.49	mg/L	98%		9901-4	0.5	50-150%	
		0.50	**0.49**	**mg/L**	**98%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.90	mg/L	97%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9901-3	0.5	90-110%	
		4.00	**3.93**	**mg/L**	**98%**	**1.8 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-508

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Matrix Spike	Matrix Spike	4.00	4.00	mg/L	100%		9901-74	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	3.99	mg/L	100%		9901-74	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**0.3 %**				
Method Blank	Method Blank		ND*	mg/L			9901-335	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9901-335	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.52	mg/L	104%		9901-4	0.5	50-150%	
		0.50	**0.53**	**mg/L**	**106%**	**1.9 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.98	mg/L	100%		9901-3	0.5	90-110%	
		4.00	**3.98**	**mg/L**	**100%**	**0.3 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-509

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.04	mg/L	101%		9901-231	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.13	mg/L	103%		9901-231	0.5		
		4.00	**4.08**	**mg/L**	**102%**	**2.2 %**				
Method Blank	Method Blank		ND*	mg/L			9902-5	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9902-5	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.48	mg/L	96%		9901-4	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.49	mg/L	98%		9901-4	0.5	50-150%	
		0.50	**0.49**	**mg/L**	**98%**	**2.0 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9901-3	0.5	90-110%	
		4.00	**3.97**	**mg/L**	**99%**	**0.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-510

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.95	mg/L	99%		9901-187	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.03	mg/L	101%		9901-187	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**2.0 %**				
Method Blank	Method Blank		ND*	mg/L			9902-11	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9902-11	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.53	mg/L	106%		9901-215	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.53	mg/L	106%		9901-215	0.5	50-150%	
		0.50	**0.53**	**mg/L**	**106%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.92	mg/L	98%		9901-3	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9901-3	0.5	90-110%	
		4.00	**3.94**	**mg/L**	**98%**	**1.0 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-511

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.10	mg/L	102%		9901-77	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.15	mg/L	104%		9901-77	0.5		
		4.00	**4.13**	**mg/L**	**103%**	**1.2 %**				
Method Blank	Method Blank		ND*	mg/L			9902-21	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9902-21	0.5		
			ND*	**mg/L**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Standard	Standard	0.50	0.54	mg/L	108%		9901-215	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.56	mg/L	112%		9901-215	0.5	50-150%	
		0.50	**0.55**	**mg/L**	**110%**	**3.6 %**			50-150%	20%
Standard	Standard	4.00	3.97	mg/L	99%		9902-22	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.96	mg/L	99%		9902-22	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**0.3 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-512

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	3.99	mg/L	100%		9901-78	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.01	mg/L	100%		9901-78	0.5		
		4.00	**4.00**	**mg/L**	**100%**	**0.5 %**				
Method Blank	Method Blank		ND*	mg/L			9902-30	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9902-30	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.56	mg/L	112%		9901-215	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.56	mg/L	112%		9901-215	0.5	50-150%	
		0.50	**0.56**	**mg/L**	**112%**	**0.0 %**			50-150%	20%
Standard	Standard	4.00	3.92	mg/L	98%		9902-22	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9902-22	0.5	90-110%	
		4.00	**3.94**	**mg/L**	**98%**	**1.3 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-513

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	4.00	4.12	mg/L	103%		9901-91	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.21	mg/L	105%		9901-91	0.5		
		4.00	**4.16**	**mg/L**	**104%**	**1.9 %**				
Method Blank	Method Blank		ND*	mg/L			9902-40	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9902-40	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.48	mg/L	96%		9901-215	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.46	mg/L	92%		9901-215	0.5	50-150%	
		0.50	**0.47**	**mg/L**	**94%**	**4.3 %**			50-150%	20%
Standard	Standard	4.00	4.01	mg/L	100%		9902-22	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9902-22	0.5	90-110%	
		4.00	**4.03**	**mg/L**	**101%**	**0.7 %**			90-110%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-514

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	4.12	mg/L	103%		9901-80	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.11	mg/L	103%		9901-80	0.5		
		4.00	**4.11**	**mg/L**	**103%**	**0.2 %**				
Method Blank	Method Blank		ND*	mg/L			9902-50	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9902-50	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9901-215	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.49	mg/L	98%		9901-215	0.5	50-150%	
		0.50	**0.50**	**mg/L**	**100%**	**2.0 %**			50-150%	20%
Standard	Standard	4.00	3.98	mg/L	100%		9902-22	0.5	90-110%	
Standard (Dupl)	Standard	4.00	4.04	mg/L	101%		9902-22	0.5	90-110%	
		4.00	**4.01**	**mg/L**	**100%**	**1.5 %**			90-110%	10%

Analysis: TOC-ICR (Total Organic Carbon) **Method:** SM 5310 C

QC Batch ID: 7-0-515

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	4.00	3.95	mg/L	99%		9901-81	0.5		
Matrix Spike (Dupl)	Matrix Spike	4.00	4.03	mg/L	101%		9901-81	0.5		
		4.00	**3.99**	**mg/L**	**100%**	**2.3 %**				
Method Blank	Method Blank		ND*	mg/L			9902-60	0.5		
Method Blank (Dupl)	Method Blank		ND*	mg/L			9902-60	0.5		
			ND*	**mg/L**						
Standard	Standard	0.50	0.50	mg/L	100%		9901-215	0.5	50-150%	
Standard (Dupl)	Standard	0.50	0.48	mg/L	96%		9901-215	0.5	50-150%	
		0.50	**0.49**	**mg/L**	**98%**	**4.1 %**			50-150%	20%
Standard	Standard	4.00	3.95	mg/L	99%		9902-22	0.5	90-110%	
Standard (Dupl)	Standard	4.00	3.97	mg/L	99%		9902-22	0.5	90-110%	
		4.00	**3.96**	**mg/L**	**99%**	**0.5 %**			90-110%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-392

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9901-109	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-109	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-109	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-109	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Standard	Standard	0.009	0.007	1/cm	78%		9901-5	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-5	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9901-110	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9901-110	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-395

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9901-122	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-122	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-122	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-122	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9901-5	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-5	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.082	1/cm	93%		9901-110	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.082	1/cm	93%		9901-110	0.009	85-115%	
		0.088	**0.082**	**1/cm**	**93%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-396

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9901-125	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-125	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-125	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-125	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9901-5	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9901-5	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**12.5 %**			75-125%	20%
Standard	Standard	0.088	0.082	1/cm	93%		9901-110	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.082	1/cm	93%		9901-110	0.009	85-115%	
		0.088	**0.082**	**1/cm**	**93%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-397

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9901-217	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-217	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-217	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-217	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.082	1/cm	93%		9901-110	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.082	1/cm	93%		9901-110	0.009	85-115%	
		0.088	**0.082**	**1/cm**	**93%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-399

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9901-270	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-270	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-270	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-270	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9901-110	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.082	1/cm	93%		9901-110	0.009	85-115%	
		0.088	**0.082**	**1/cm**	**93%**	**1.2 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-403

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9901-282	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-282	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-282	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-282	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Standard	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9901-110	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.083	1/cm	94%		9901-110	0.009	85-115%	
		0.088	**0.083**	**1/cm**	**94%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-404

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9901-284	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-284	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-284	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-284	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9901-216	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9901-110	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.083	1/cm	94%		9901-110	0.009	85-115%	
		0.088	**0.083**	**1/cm**	**94%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-407

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9901-293	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-293	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-293	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-293	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.082	1/cm	93%		9901-292	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.082	1/cm	93%		9901-292	0.009	85-115%	
		0.088	**0.082**	**1/cm**	**93%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-408

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9901-325	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-325	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-325	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-325	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**12.5 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9901-292	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.083	1/cm	94%		9901-292	0.009	85-115%	
		0.088	**0.083**	**1/cm**	**94%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-409

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9901-327	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-327	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-327	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-327	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.082	1/cm	93%		9901-292	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.082	1/cm	93%		9901-292	0.009	85-115%	
		0.088	**0.082**	**1/cm**	**93%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-410

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9901-337	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-337	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9901-337	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9901-337	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9901-292	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9901-292	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-411

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9902-10	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-10	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9902-10	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-10	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.082	1/cm	93%		9901-292	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.082	1/cm	93%		9901-292	0.009	85-115%	
		0.088	**0.082**	**1/cm**	**93%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-412

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Method Blank	Method Blank		ND*	1/cm			9902-23	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-23	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9902-23	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-23	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9901-216	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9901-292	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.083	1/cm	94%		9901-292	0.009	85-115%	
		0.088	**0.083**	**1/cm**	**94%**	**0.0 %**			85-115%	10%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-413

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9902-37	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-37	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9902-37	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-37	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.007	1/cm	78%		9902-35	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.007	1/cm	78%		9902-35	0.009	75-125%	
		0.009	**0.007**	**1/cm**	**78%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9901-292	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.083	1/cm	94%		9901-292	0.009	85-115%	
		0.088	**0.083**	**1/cm**	**94%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-414

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9902-41	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-41	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9902-41	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-41	0.009		
			ND*	**1/cm**						
Standard	Standard	0.009	0.008	1/cm	89%		9902-35	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9902-35	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.084	1/cm	95%		9901-292	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.084	1/cm	95%		9901-292	0.009	85-115%	
		0.088	**0.084**	**1/cm**	**95%**	**0.0 %**			85-115%	10%

Analysis: UV-ICR (UV-254) **Method:** SM 5910 B

QC Batch ID: 8-0-415

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Method Blank	Method Blank		ND*	1/cm			9902-80	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-80	0.009		
			ND*	**1/cm**						
Method Blank	Method Blank		ND*	1/cm			9902-80	0.009		
Method Blank (Dupl)	Method Blank		ND*	1/cm			9902-80	0.009		
			ND*	**1/cm**						

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard	Standard	0.009	0.008	1/cm	89%		9902-35	0.009	75-125%	
Standard (Dupl)	Standard	0.009	0.008	1/cm	89%		9902-35	0.009	75-125%	
		0.009	**0.008**	**1/cm**	**89%**	**0.0 %**			75-125%	20%
Standard	Standard	0.088	0.083	1/cm	94%		9902-55	0.009	85-115%	
Standard (Dupl)	Standard	0.088	0.083	1/cm	94%		9902-55	0.009	85-115%	
		0.088	**0.083**	**1/cm**	**94%**	**0.0 %**			85-115%	10%

Analysis: TURB (Turbidity) **Method:** SM 2130 B

QC Batch ID: 9-0-22

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard	Standard	5.41	5.52	ntu	102%		11/30/98	9807-108	0.05		
Standard	Standard	5.41	5.53	ntu	102%		12/07/98	9807-108	0.05		
Standard	Standard	5.41	5.56	ntu	103%		12/07/98	9807-108	0.05		
Standard	Standard	5.41	5.53	ntu	102%		12/08/98	9807-108	0.05		
Standard	Standard	5.41	5.56	ntu	103%		12/10/98	9807-108	0.05		
Standard	Standard	5.41	5.55	ntu	103%		01/10/99	9807-108	0.05		
Standard	Standard	5.41	5.57	ntu	103%		01/19/99	9807-108	0.05		
Standard	Standard	5.41	5.60	ntu	104%		01/23/99	9807-108	0.05		
Standard	Standard	5.41	5.54	ntu	102%		01/28/99	9807-108	0.05		

Analysis: TURB (Turbidity) **Method:** SM 2130 B

QC Batch ID: 9-0-23

QC Type		Spike	Recovery	Unit	Yield	RPD	Date Run	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard	Standard	5.41	5.59	ntu	103%		02/02/99	9807-108	0.05		
Standard	Standard	5.41	5.56	ntu	103%		02/10/99	9807-108	0.05		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-269

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9901-243	25	75-125%	
Standard - TCP Aqueous	Standard	200	180	µg Cl-/L	90%		9901-242	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9901-241	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-270

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Matrix Spike	Matrix Spike	200	202	µg Cl-/L	101%		9901-34	25		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Matrix Spike (Dupl)	Matrix Spike	200	199	µg Cl-/L	100%		9901-34	25	
		200	**201**	**µg Cl-/L**	**100%**	**1.5 %**			
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9901-260	25	75-125%
Standard - TCP Aqueous	Standard	200	190	µg Cl-/L	95%		9901-259	25	85-115%
System Blank	Blank		ND*	µg Cl-/L			9901-258	25	

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-271

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9901-288	25	75-125%	
Standard - TCP Aqueous	Standard	200	192	µg Cl-/L	96%		9901-287	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9901-286	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-272

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9901-322	25	75-125%	
Standard - TCP Aqueous	Standard	200	187	µg Cl-/L	94%		9901-321	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9901-323	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-274

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9902-4	25	75-125%	
Standard - TCP Aqueous	Standard	200	192	µg Cl-/L	96%		9902-3	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9902-2	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-275

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	22	µg Cl-/L	88%		9902-15	25	75-125%	
Standard - TCP Aqueous	Standard	200	195	µg Cl-/L	97%		9902-14	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9902-13	25		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-276

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	203	µg Cl-/L	101%		9901-180	25		
Matrix Spike (Dupl)	Matrix Spike	200	176	µg Cl-/L	88%		9901-180	25		
		200	**189**	**µg Cl-/L**	**94%**	**14.3 %**				
Standard - TCP Aqueous	Standard	25	23	µg Cl-/L	92%		9902-27	25	75-125%	
Standard - TCP Aqueous	Standard	200	198	µg Cl-/L	99%		9902-26	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9902-28	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-277

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9902-45	25	75-125%	
Standard - TCP Aqueous	Standard	200	189	µg Cl-/L	94%		9902-44	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9902-43	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-278

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9902-54	25	75-125%	
Standard - TCP Aqueous	Standard	200	188	µg Cl-/L	94%		9902-53	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9902-52	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-279

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Standard - TCP Aqueous	Standard	25	24	µg Cl-/L	96%		9902-84	25	75-125%	
Standard - TCP Aqueous	Standard	200	189	µg Cl-/L	94%		9902-83	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9902-82	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-280

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	Acceptance Criteria RPD
Matrix Spike	Matrix Spike	200	218	µg Cl-/L	109%		9901-91	25		
Matrix Spike (Dupl)	Matrix Spike	200	195	µg Cl-/L	97%		9901-91	25		
		200	**207**	**µg Cl-/L**	**103%**	**11.1 %**				

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Standard - TCP Aqueous	Standard	25	26	µg Cl-/L	104%		9902-91	25	75-125%	
Standard - TCP Aqueous	Standard	200	197	µg Cl-/L	98%		9902-92	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9902-93	25		

Analysis: TOX-ICR (Total Organic Halide) **Method:** SM 5320 B

QC Batch ID: 12-0-281

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Standard - TCP Aqueous	Standard	25	25	µg Cl-/L	100%		9902-169	25	75-125%	
Standard - TCP Aqueous	Standard	200	200	µg Cl-/L	100%		9902-170	25	85-115%	
System Blank	Blank		ND*	µg Cl-/L			9902-168	25		

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-299-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	8.6	8.6	µg/L		0.0%	9901-246	1		
Bromodichloromethane	Matrix Spike	40.0	44.9	µg/L	112%		9901-18	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9901-253	1		
Bromodichloromethane	Secondary Source Std	20.0	22.0	µg/L	110%		9901-254	1	70-130%	
Bromodichloromethane	Standard	20.0	21.2	µg/L	106%		9901-255	1	80-120%	
Bromodichloromethane	Standard	40.0	43.9	µg/L	110%		9901-256	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9901-246	1		
Bromoform	Matrix Spike	40.0	44.8	µg/L	112%		9901-18	1		
Bromoform	Method Blank		ND*	µg/L			9901-253	1		
Bromoform	Secondary Source Std	20.0	20.5	µg/L	102%		9901-254	1	70-130%	
Bromoform	Standard	20.0	20.9	µg/L	104%		9901-255	1	80-120%	
Bromoform	Standard	40.0	42.3	µg/L	106%		9901-256	1	80-120%	
Chloroform	Duplicate	41.5	41.3	µg/L		0.5%	9901-246	1		
Chloroform	Matrix Spike	40.0	43.8	µg/L	110%		9901-18	1		
Chloroform	Method Blank		ND*	µg/L			9901-253	1		
Chloroform	Secondary Source Std	20.0	22.7	µg/L	114%		9901-254	1	70-130%	
Chloroform	Standard	20.0	20.9	µg/L	104%		9901-255	1	80-120%	
Chloroform	Standard	40.0	44.1	µg/L	110%		9901-256	1	80-120%	
Dibromochloromethane	Duplicate	ND	ND	µg/L		NA	9901-246	1		
Dibromochloromethane	Matrix Spike	40.0	43.4	µg/L	109%		9901-18	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Dibromochloromethane	Method Blank		ND*	µg/L			9901-253	1	
Dibromochloromethane	Secondary Source Std	20.0	21.4	µg/L	107%		9901-254	1	70-130%
Dibromochloromethane	Standard	20.0	20.9	µg/L	104%		9901-255	1	80-120%
Dibromochloromethane	Standard	40.0	44.6	µg/L	112%		9901-256	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-301-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	18.8	18.0	µg/L		4.3%	9901-306	1		
Bromodichloromethane	Matrix Spike	40.0	37.1	µg/L	93%		9901-166	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9902-6	1		
Bromodichloromethane	Secondary Source Std	20.0	21.1	µg/L	106%		9902-7	1	70-130%	
Bromodichloromethane	Standard	20.0	20.4	µg/L	102%		9902-8	1	80-120%	
Bromodichloromethane	Standard	20.0	19.1	µg/L	96%		9902-8	1	80-120%	
Bromodichloromethane	Standard	40.0	39.0	µg/L	97%		9902-9	1	80-120%	
Bromodichloromethane	Standard	40.0	38.6	µg/L	97%		9902-9	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9901-306	1		
Bromoform	Matrix Spike	40.0	38.9	µg/L	97%		9901-166	1		
Bromoform	Method Blank		ND*	µg/L			9902-6	1		
Bromoform	Secondary Source Std	20.0	19.3	µg/L	97%		9902-7	1	70-130%	
Bromoform	Standard	20.0	20.6	µg/L	103%		9902-8	1	80-120%	
Bromoform	Standard	20.0	18.7	µg/L	93%		9902-8	1	80-120%	
Bromoform	Standard	40.0	39.8	µg/L	99%		9902-9	1	80-120%	
Bromoform	Standard	40.0	40.3	µg/L	101%		9902-9	1	80-120%	
Chloroform	Duplicate	101.0	103.9	µg/L		2.8%	9901-306	1		
Chloroform	Matrix Spike	40.0	36.9	µg/L	92%		9901-166	1		
Chloroform	Method Blank		ND*	µg/L			9902-6	1		
Chloroform	Secondary Source Std	20.0	21.3	µg/L	106%		9902-7	1	70-130%	
Chloroform	Standard	20.0	19.7	µg/L	98%		9902-8	1	80-120%	
Chloroform	Standard	20.0	18.3	µg/L	92%		9902-8	1	80-120%	
Chloroform	Standard	40.0	39.4	µg/L	98%		9902-9	1	80-120%	
Chloroform	Standard	40.0	38.8	µg/L	97%		9902-9	1	80-120%	
Dibromochloromethane	Duplicate	1.6	1.6	µg/L		0.0%	9901-306	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Dibromochloromethane	Matrix Spike	40.0	38.2	µg/L	96%		9901-166	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9902-6	1	
Dibromochloromethane	Secondary Source Std	20.0	20.4	µg/L	102%		9902-7	1	70-130%
Dibromochloromethane	Standard	20.0	21.0	µg/L	105%		9902-8	1	80-120%
Dibromochloromethane	Standard	20.0	19.6	µg/L	98%		9902-8	1	80-120%
Dibromochloromethane	Standard	40.0	40.0	µg/L	100%		9902-9	1	80-120%
Dibromochloromethane	Standard	40.0	39.5	µg/L	99%		9902-9	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-302-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	16.3	15.6	µg/L		4.4%	9901-150	1		
Bromodichloromethane	Matrix Spike	40.0	45.7	µg/L	114%		9901-170	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9902-17	1		
Bromodichloromethane	Secondary Source Std	20.0	23.0	µg/L	115%		9902-18	1	70-130%	
Bromodichloromethane	Standard	20.0	20.7	µg/L	103%		9902-19	1	80-120%	
Bromodichloromethane	Standard	20.0	20.0	µg/L	100%		9902-19	1	80-120%	
Bromodichloromethane	Standard	40.0	43.5	µg/L	109%		9902-20	1	80-120%	
Bromoform	Duplicate	2.5	2.2	µg/L		12.8%	9901-150	1		
Bromoform	Matrix Spike	40.0	42.5	µg/L	106%		9901-170	1		
Bromoform	Method Blank		ND*	µg/L			9902-17	1		
Bromoform	Secondary Source Std	20.0	21.6	µg/L	108%		9902-18	1	70-130%	
Bromoform	Standard	20.0	20.7	µg/L	103%		9902-19	1	80-120%	
Bromoform	Standard	20.0	20.2	µg/L	101%		9902-19	1	80-120%	
Bromoform	Standard	40.0	45.1	µg/L	113%		9902-20	1	80-120%	
Chloroform	Duplicate	9.2	8.9	µg/L		3.3%	9901-150	1		
Chloroform	Matrix Spike	40.0	45.3	µg/L	113%		9901-170	1		
Chloroform	Method Blank		ND*	µg/L			9902-17	1		
Chloroform	Secondary Source Std	20.0	22.7	µg/L	114%		9902-18	1	70-130%	
Chloroform	Standard	20.0	20.0	µg/L	100%		9902-19	1	80-120%	
Chloroform	Standard	20.0	19.2	µg/L	96%		9902-19	1	80-120%	
Chloroform	Standard	40.0	43.7	µg/L	109%		9902-20	1	80-120%	
Dibromochloromethane	Duplicate	14.1	13.1	µg/L		7.4%	9901-150	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Dibromochloromethane	Matrix Spike	40.0	45.3	µg/L	113%		9901-170	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9902-17	1	
Dibromochloromethane	Secondary Source Std	20.0	22.5	µg/L	113%		9902-18	1	70-130%
Dibromochloromethane	Standard	20.0	20.7	µg/L	103%		9902-19	1	80-120%
Dibromochloromethane	Standard	20.0	20.1	µg/L	101%		9902-19	1	80-120%
Dibromochloromethane	Standard	40.0	44.0	µg/L	110%		9902-20	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-304-0

QC Type		Spike	Recovery	Unit	Yield	RPD	S&H ID	MRL	Acceptance Criteria Range	RPD
Bromodichloromethane	Duplicate	9.1	9.0	µg/L		1.1%	9901-199	1		
Bromodichloromethane	Matrix Spike	40.0	39.6	µg/L	99%		9901-233	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9902-46	1		
Bromodichloromethane	Secondary Source Std	20.0	19.2	µg/L	96%		9902-47	1	70-130%	
Bromodichloromethane	Standard	20.0	19.6	µg/L	98%		9902-48	1	80-120%	
Bromodichloromethane	Standard	20.0	20.5	µg/L	102%		9902-48	1	80-120%	
Bromodichloromethane	Standard	40.0	40.5	µg/L	101%		9902-49	1	80-120%	
Bromoform	Duplicate	2.2	2.1	µg/L		4.7%	9901-199	1		
Bromoform	Matrix Spike	40.0	39.5	µg/L	99%		9901-233	1		
Bromoform	Method Blank		ND*	µg/L			9902-46	1		
Bromoform	Secondary Source Std	20.0	18.2	µg/L	91%		9902-47	1	70-130%	
Bromoform	Standard	20.0	20.2	µg/L	101%		9902-48	1	80-120%	
Bromoform	Standard	20.0	20.0	µg/L	100%		9902-48	1	80-120%	
Bromoform	Standard	40.0	43.2	µg/L	108%		9902-49	1	80-120%	
Chloroform	Duplicate	4.1	4.0	µg/L		2.5%	9901-199	1		
Chloroform	Matrix Spike	40.0	42.8	µg/L	107%		9901-233	1		
Chloroform	Method Blank		ND*	µg/L			9902-46	1		
Chloroform	Secondary Source Std	20.0	19.0	µg/L	95%		9902-47	1	70-130%	
Chloroform	Standard	20.0	18.7	µg/L	93%		9902-48	1	80-120%	
Chloroform	Standard	20.0	20.1	µg/L	101%		9902-48	1	80-120%	
Chloroform	Standard	40.0	40.9	µg/L	102%		9902-49	1	80-120%	
Dibromochloromethane	Duplicate	9.9	10.0	µg/L		1.0%	9901-199	1		
Dibromochloromethane	Matrix Spike	40.0	40.7	µg/L	102%		9901-233	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Dibromochloromethane	Method Blank		ND*	µg/L			9902-46	1	
Dibromochloromethane	Secondary Source Std	20.0	19.0	µg/L	95%		9902-47	1	70-130%
Dibromochloromethane	Standard	20.0	20.0	µg/L	100%		9902-48	1	80-120%
Dibromochloromethane	Standard	20.0	20.6	µg/L	103%		9902-48	1	80-120%
Dibromochloromethane	Standard	40.0	41.5	µg/L	104%		9902-49	1	80-120%

Analysis: THM-ICR (Trihalomethanes (ICR)) **Method:** EPA 551.1

QC Batch ID: 0-307-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromodichloromethane	Duplicate	30.9	32.5	µg/L		5.0%	9902-69	1		
Bromodichloromethane	Matrix Spike	40.0	39.7	µg/L	99%		9902-78	1		
Bromodichloromethane	Method Blank		ND*	µg/L			9902-155	1		
Bromodichloromethane	Secondary Source Std	20.0	19.1	µg/L	96%		9902-156	1	70-130%	
Bromodichloromethane	Standard	20.0	19.4	µg/L	97%		9902-157	1	80-120%	
Bromodichloromethane	Standard	20.0	18.8	µg/L	94%		9902-157	1	80-120%	
Bromodichloromethane	Standard	20.0	20.0	µg/L	100%		9902-157	1	80-120%	
Bromodichloromethane	Standard	40.0	40.6	µg/L	102%		9902-158	1	80-120%	
Bromodichloromethane	Standard	40.0	38.7	µg/L	97%		9902-158	1	80-120%	
Bromoform	Duplicate	ND	ND	µg/L		NA	9902-69	1		
Bromoform	Matrix Spike	40.0	38.6	µg/L	97%		9902-78	1		
Bromoform	Method Blank		ND*	µg/L			9902-155	1		
Bromoform	Secondary Source Std	20.0	17.6	µg/L	88%		9902-156	1	70-130%	
Bromoform	Standard	20.0	18.5	µg/L	93%		9902-157	1	80-120%	
Bromoform	Standard	20.0	18.1	µg/L	91%		9902-157	1	80-120%	
Bromoform	Standard	20.0	18.5	µg/L	93%		9902-157	1	80-120%	
Bromoform	Standard	40.0	42.5	µg/L	106%		9902-158	1	80-120%	
Bromoform	Standard	40.0	41.3	µg/L	103%		9902-158	1	80-120%	
Chloroform	Duplicate	145.3	150.3	µg/L		3.4%	9902-69	1		
Chloroform	Matrix Spike	40.0	40.2	µg/L	101%		9902-78	1		
Chloroform	Method Blank		ND*	µg/L			9902-155	1		
Chloroform	Secondary Source Std	20.0	19.2	µg/L	96%		9902-156	1	70-130%	
Chloroform	Standard	20.0	18.7	µg/L	93%		9902-157	1	80-120%	
Chloroform	Standard	20.0	18.3	µg/L	92%		9902-157	1	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chloroform	Standard	20.0	19.5	µg/L	97%		9902-157	1	80-120%
Chloroform	Standard	40.0	41.1	µg/L	103%		9902-158	1	80-120%
Chloroform	Standard	40.0	38.4	µg/L	96%		9902-158	1	80-120%
Dibromochloromethane	Duplicate	5.1	5.6	µg/L		9.3%	9902-69	1	
Dibromochloromethane	Matrix Spike	40.0	38.0	µg/L	95%		9902-78	1	
Dibromochloromethane	Method Blank		ND*	µg/L			9902-155	1	
Dibromochloromethane	Secondary Source Std	20.0	18.8	µg/L	94%		9902-156	1	70-130%
Dibromochloromethane	Standard	20.0	19.6	µg/L	98%		9902-157	1	80-120%
Dibromochloromethane	Standard	20.0	19.0	µg/L	95%		9902-157	1	80-120%
Dibromochloromethane	Standard	20.0	20.5	µg/L	102%		9902-157	1	80-120%
Dibromochloromethane	Standard	40.0	41.5	µg/L	104%		9902-158	1	80-120%
Dibromochloromethane	Standard	40.0	38.6	µg/L	97%		9902-158	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-298-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	2.1	2.1	µg/L		0.0%	9901-247	1		
Bromochloroacetic acid	Matrix Spike	40.0	40.2	µg/L	101%		9901-100	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9901-249	1		
Bromochloroacetic acid	Secondary Source Std	20.0	22.2	µg/L	111%		9901-250	1	70-130%	
Bromochloroacetic acid	Standard	20.0	19.7	µg/L	98%		9901-251	1	80-120%	
Bromochloroacetic acid	Standard	40.0	39.7	µg/L	99%		9901-252	1	80-120%	
Bromodichloroacetic acid	Duplicate	1.8	2.0	µg/L		10.5%	9901-247	1		
Bromodichloroacetic acid	Matrix Spike	40.0	40.7	µg/L	102%		9901-100	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9901-249	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9901-250	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	18.9	µg/L	94%		9901-251	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	41.6	µg/L	104%		9901-252	1	80-120%	
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9901-247	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	40.2	µg/L	101%		9901-100	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9901-249	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9901-250	2	70-130%	
Chlorodibromoacetic acid	Standard	20.0	19.0	µg/L	95%		9901-251	2	80-120%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chlorodibromoacetic acid	Standard	40.0	42.6 µg/L	106%		9901-252	2	80-120%
Dibromoacetic acid	Duplicate	ND	ND µg/L		NA	9901-247	1	
Dibromoacetic acid	Matrix Spike	40.0	41.1 µg/L	103%		9901-100	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9901-249	1	
Dibromoacetic acid	Secondary Source Std	20.0	22.9 µg/L	115%		9901-250	1	70-130%
Dibromoacetic acid	Standard	20.0	19.5 µg/L	97%		9901-251	1	80-120%
Dibromoacetic acid	Standard	40.0	39.6 µg/L	99%		9901-252	1	80-120%
Dichloroacetic acid	Duplicate	12.0	11.4 µg/L		5.1%	9901-247	1	
Dichloroacetic acid	Matrix Spike	40.0	38.5 µg/L	96%		9901-100	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9901-249	1	
Dichloroacetic acid	Secondary Source Std	20.0	22.7 µg/L	114%		9901-250	1	70-130%
Dichloroacetic acid	Standard	20.0	20.2 µg/L	101%		9901-251	1	80-120%
Dichloroacetic acid	Standard	40.0	39.4 µg/L	98%		9901-252	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9901-247	1	
Monobromoacetic acid	Matrix Spike	40.0	39.9 µg/L	100%		9901-100	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9901-249	1	
Monobromoacetic acid	Secondary Source Std	20.0	22.2 µg/L	111%		9901-250	1	70-130%
Monobromoacetic acid	Standard	20.0	19.6 µg/L	98%		9901-251	1	80-120%
Monobromoacetic acid	Standard	40.0	40.7 µg/L	102%		9901-252	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9901-247	2	
Monochloroacetic acid	Matrix Spike	40.0	42.3 µg/L	106%		9901-100	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9901-249	2	
Monochloroacetic acid	Secondary Source Std	20.0	21.8 µg/L	109%		9901-250	2	70-130%
Monochloroacetic acid	Standard	20.0	18.8 µg/L	94%		9901-251	2	80-120%
Monochloroacetic acid	Standard	40.0	40.4 µg/L	101%		9901-252	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9901-247	4	
Tribromoacetic acid	Matrix Spike	40.0	38.8 µg/L	97%		9901-100	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9901-249	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9901-250	4	70-130%
Tribromoacetic acid	Standard	20.0	19.2 µg/L	96%		9901-251	4	80-120%
Tribromoacetic acid	Standard	40.0	43.2 µg/L	108%		9901-252	4	80-120%
Trichloroacetic acid	Duplicate	9.7	10.9 µg/L		11.7%	9901-247	1	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Trichloroacetic acid	Matrix Spike	40.0	35.7 µg/L	89%		9901-100	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9901-249	1	
Trichloroacetic acid	Secondary Source Std	20.0	22.7 µg/L	114%		9901-250	1	70-130%
Trichloroacetic acid	Standard	20.0	19.3 µg/L	97%		9901-251	1	80-120%
Trichloroacetic acid	Standard	40.0	39.9 µg/L	100%		9901-252	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-300-0

								Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	1.1	1.3	µg/L		16.7%	9901-299	1		
Bromochloroacetic acid	Matrix Spike	40.0	34.6	µg/L	86%		9901-309	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9901-317	1		
Bromochloroacetic acid	Secondary Source Std	20.0	17.2	µg/L	86%		9901-318	1	70-130%	
Bromochloroacetic acid	Standard	20.0	19.7	µg/L	98%		9901-319	1	80-120%	
Bromochloroacetic acid	Standard	20.0	19.9	µg/L	99%		9901-319	1	80-120%	
Bromochloroacetic acid	Standard	40.0	39.7	µg/L	99%		9901-320	1	80-120%	
Bromodichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9901-299	1		
Bromodichloroacetic acid	Matrix Spike	40.0	32.9	µg/L	82%		9901-309	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9901-317	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9901-318	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	19.3	µg/L	97%		9901-319	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	19.7	µg/L	98%		9901-319	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	40.4	µg/L	101%		9901-320	1	80-120%	
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9901-299	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	33.1	µg/L	83%		9901-309	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9901-317	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9901-318	2	70-130%	
Chlorodibromoacetic acid	Standard	20.0	19.1	µg/L	96%		9901-319	2	80-120%	
Chlorodibromoacetic acid	Standard	20.0	19.6	µg/L	98%		9901-319	2	80-120%	
Chlorodibromoacetic acid	Standard	40.0	41.1	µg/L	103%		9901-320	2	80-120%	
Dibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9901-299	1		
Dibromoacetic acid	Matrix Spike	40.0	35.9	µg/L	90%		9901-309	1		
Dibromoacetic acid	Method Blank		ND*	µg/L			9901-317	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Dibromoacetic acid	Secondary Source Std	20.0	16.8 µg/L	84%		9901-318	1	70-130%
Dibromoacetic acid	Standard	20.0	19.7 µg/L	98%		9901-319	1	80-120%
Dibromoacetic acid	Standard	20.0	19.9 µg/L	99%		9901-319	1	80-120%
Dibromoacetic acid	Standard	40.0	39.6 µg/L	99%		9901-320	1	80-120%
Dichloroacetic acid	Duplicate	2.8	3.1 µg/L		10.2%	9901-299	1	
Dichloroacetic acid	Matrix Spike	40.0	34.3 µg/L	86%		9901-309	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9901-317	1	
Dichloroacetic acid	Secondary Source Std	20.0	18.3 µg/L	92%		9901-318	1	70-130%
Dichloroacetic acid	Standard	20.0	19.8 µg/L	99%		9901-319	1	80-120%
Dichloroacetic acid	Standard	20.0	19.7 µg/L	98%		9901-319	1	80-120%
Dichloroacetic acid	Standard	40.0	38.9 µg/L	97%		9901-320	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9901-299	1	
Monobromoacetic acid	Matrix Spike	40.0	41.7 µg/L	104%		9901-309	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9901-317	1	
Monobromoacetic acid	Secondary Source Std	20.0	19.1 µg/L	96%		9901-318	1	70-130%
Monobromoacetic acid	Standard	20.0	19.7 µg/L	98%		9901-319	1	80-120%
Monobromoacetic acid	Standard	20.0	20.1 µg/L	101%		9901-319	1	80-120%
Monobromoacetic acid	Standard	40.0	38.9 µg/L	97%		9901-320	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9901-299	2	
Monochloroacetic acid	Matrix Spike	40.0	39.8 µg/L	99%		9901-309	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9901-317	2	
Monochloroacetic acid	Secondary Source Std	20.0	19.8 µg/L	99%		9901-318	2	70-130%
Monochloroacetic acid	Standard	20.0	19.8 µg/L	99%		9901-319	2	80-120%
Monochloroacetic acid	Standard	20.0	19.1 µg/L	96%		9901-319	2	80-120%
Monochloroacetic acid	Standard	40.0	39.2 µg/L	98%		9901-320	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9901-299	4	
Tribromoacetic acid	Matrix Spike	40.0	32.7 µg/L	82%		9901-309	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9901-317	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9901-318	4	70-130%
Tribromoacetic acid	Standard	20.0	19.4 µg/L	97%		9901-319	4	80-120%
Tribromoacetic acid	Standard	20.0	19.6 µg/L	98%		9901-319	4	80-120%
Tribromoacetic acid	Standard	40.0	41.8 µg/L	104%		9901-320	4	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Trichloroacetic acid	Duplicate	1.9	2.5	µg/L	27.3%	9901-299	1	
Trichloroacetic acid	Matrix Spike	40.0	34.3	µg/L	86%	9901-309	1	
Trichloroacetic acid	Method Blank		ND*	µg/L		9901-317	1	
Trichloroacetic acid	Secondary Source Std	20.0	16.5	µg/L	82%	9901-318	1	70-130%
Trichloroacetic acid	Standard	20.0	19.5	µg/L	97%	9901-319	1	80-120%
Trichloroacetic acid	Standard	20.0	19.6	µg/L	98%	9901-319	1	80-120%
Trichloroacetic acid	Standard	40.0	39.5	µg/L	99%	9901-320	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-305-0

								Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	1.5	1.5	µg/L		0.0%	9902-58	1		
Bromochloroacetic acid	Matrix Spike	40.0	40.2	µg/L	101%		9901-73	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9902-61	1		
Bromochloroacetic acid	Secondary Source Std	20.0	18.2	µg/L	91%		9902-62	1	70-130%	
Bromochloroacetic acid	Standard	20.0	18.6	µg/L	93%		9902-63	1	80-120%	
Bromochloroacetic acid	Standard	20.0	18.9	µg/L	94%		9902-63	1	80-120%	
Bromochloroacetic acid	Standard	40.0	41.6	µg/L	104%		9902-64	1	80-120%	
Bromodichloroacetic acid	Duplicate	1.1	1.2	µg/L		8.7%	9902-58	1		
Bromodichloroacetic acid	Matrix Spike	40.0	35.7	µg/L	89%		9901-73	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9902-61	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9902-62	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	17.8	µg/L	89%		9902-63	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	18.7	µg/L	93%		9902-63	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	43.7	µg/L	109%		9902-64	1	80-120%	
Chlorodibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9902-58	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	37.3	µg/L	93%		9901-73	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9902-61	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9902-62	2	70-130%	
Chlorodibromoacetic acid	Standard	20.0	18.0	µg/L	90%		9902-63	2	80-120%	
Chlorodibromoacetic acid	Standard	20.0	19.0	µg/L	95%		9902-63	2	80-120%	
Chlorodibromoacetic acid	Standard	40.0	44.2	µg/L	111%		9902-64	2	80-120%	
Dibromoacetic acid	Duplicate	ND	ND	µg/L		NA	9902-58	1		

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Dibromoacetic acid	Matrix Spike	40.0	39.0 µg/L	97%		9901-73	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9902-61	1	
Dibromoacetic acid	Secondary Source Std	20.0	17.1 µg/L	86%		9902-62	1	70-130%
Dibromoacetic acid	Standard	20.0	18.1 µg/L	91%		9902-63	1	80-120%
Dibromoacetic acid	Standard	20.0	18.5 µg/L	93%		9902-63	1	80-120%
Dibromoacetic acid	Standard	40.0	42.0 µg/L	105%		9902-64	1	80-120%
Dichloroacetic acid	Duplicate	3.2	3.3 µg/L		3.1%	9902-58	1	
Dichloroacetic acid	Matrix Spike	40.0	40.3 µg/L	101%		9901-73	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9902-61	1	
Dichloroacetic acid	Secondary Source Std	20.0	20.6 µg/L	103%		9902-62	1	70-130%
Dichloroacetic acid	Standard	20.0	18.8 µg/L	94%		9902-63	1	80-120%
Dichloroacetic acid	Standard	20.0	18.8 µg/L	94%		9902-63	1	80-120%
Dichloroacetic acid	Standard	40.0	38.9 µg/L	97%		9902-64	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9902-58	1	
Monobromoacetic acid	Matrix Spike	40.0	37.8 µg/L	94%		9901-73	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9902-61	1	
Monobromoacetic acid	Secondary Source Std	20.0	22.4 µg/L	112%		9902-62	1	70-130%
Monobromoacetic acid	Standard	20.0	19.1 µg/L	96%		9902-63	1	80-120%
Monobromoacetic acid	Standard	20.0	19.5 µg/L	97%		9902-63	1	80-120%
Monobromoacetic acid	Standard	40.0	41.0 µg/L	102%		9902-64	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9902-58	2	
Monochloroacetic acid	Matrix Spike	40.0	35.2 µg/L	88%		9901-73	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9902-61	2	
Monochloroacetic acid	Secondary Source Std	20.0	22.1 µg/L	111%		9902-62	2	70-130%
Monochloroacetic acid	Standard	20.0	19.6 µg/L	98%		9902-63	2	80-120%
Monochloroacetic acid	Standard	20.0	19.9 µg/L	99%		9902-63	2	80-120%
Monochloroacetic acid	Standard	40.0	38.5 µg/L	96%		9902-64	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9902-58	4	
Tribromoacetic acid	Matrix Spike	40.0	39.1 µg/L	98%		9901-73	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9902-61	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9902-62	4	70-130%
Tribromoacetic acid	Standard	20.0	18.0 µg/L	90%		9902-63	4	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Tribromoacetic acid	Standard	20.0	19.8	µg/L	99%		9902-63	4	80-120%
Tribromoacetic acid	Standard	40.0	43.1	µg/L	108%		9902-64	4	80-120%
Trichloroacetic acid	Duplicate	1.6	1.6	µg/L		0.0%	9902-58	1	
Trichloroacetic acid	Matrix Spike	40.0	34.0	µg/L	85%		9901-73	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9902-61	1	
Trichloroacetic acid	Secondary Source Std	20.0	17.0	µg/L	85%		9902-62	1	70-130%
Trichloroacetic acid	Standard	20.0	18.0	µg/L	90%		9902-63	1	80-120%
Trichloroacetic acid	Standard	20.0	18.4	µg/L	92%		9902-63	1	80-120%
Trichloroacetic acid	Standard	40.0	42.0	µg/L	105%		9902-64	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-306-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	5.1	5.1	µg/L		0.0%	9902-73	1		
Bromochloroacetic acid	Matrix Spike	40.0	40.8	µg/L	102%		9901-91	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9902-87	1		
Bromochloroacetic acid	Secondary Source Std	20.0	17.9	µg/L	89%		9902-88	1	70-130%	
Bromochloroacetic acid	Standard	20.0	19.3	µg/L	97%		9902-89	1	80-120%	
Bromochloroacetic acid	Standard	20.0	19.4	µg/L	97%		9902-89	1	80-120%	
Bromochloroacetic acid	Standard	20.0	19.9	µg/L	99%		9902-89	1	80-120%	
Bromochloroacetic acid	Standard	40.0	40.8	µg/L	102%		9902-90	1	80-120%	
Bromodichloroacetic acid	Duplicate	4.1	4.6	µg/L		11.5%	9902-73	1		
Bromodichloroacetic acid	Matrix Spike	40.0	43.1	µg/L	108%		9901-91	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9902-87	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9902-88	1	70-130%	
Bromodichloroacetic acid	Standard	20.0	18.4	µg/L	92%		9902-89	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	19.4	µg/L	97%		9902-89	1	80-120%	
Bromodichloroacetic acid	Standard	20.0	18.8	µg/L	94%		9902-89	1	80-120%	
Bromodichloroacetic acid	Standard	40.0	43.9	µg/L	110%		9902-90	1	80-120%	
Chlorodibromoacetic acid	Duplicate	4.0	4.2	µg/L		4.9%	9902-73	2		
Chlorodibromoacetic acid	Matrix Spike	40.0	40.7	µg/L	102%		9901-91	2		
Chlorodibromoacetic acid	Method Blank		ND*	µg/L			9902-87	2		
Chlorodibromoacetic acid	Secondary Source Std		ND	µg/L			9902-88	2	70-130%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Chlorodibromoacetic acid	Standard	20.0	18.0 µg/L	90%		9902-89	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	19.5 µg/L	97%		9902-89	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	19.7 µg/L	98%		9902-89	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	44.3 µg/L	111%		9902-90	2	80-120%
Dibromoacetic acid	Duplicate	5.7	5.8 µg/L		1.7%	9902-73	1	
Dibromoacetic acid	Matrix Spike	40.0	41.6 µg/L	104%		9901-91	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9902-87	1	
Dibromoacetic acid	Secondary Source Std	20.0	17.0 µg/L	85%		9902-88	1	70-130%
Dibromoacetic acid	Standard	20.0	19.2 µg/L	96%		9902-89	1	80-120%
Dibromoacetic acid	Standard	20.0	19.3 µg/L	97%		9902-89	1	80-120%
Dibromoacetic acid	Standard	20.0	19.8 µg/L	99%		9902-89	1	80-120%
Dibromoacetic acid	Standard	40.0	41.0 µg/L	102%		9902-90	1	80-120%
Dichloroacetic acid	Duplicate	3.1	3.1 µg/L		0.0%	9902-73	1	
Dichloroacetic acid	Matrix Spike	40.0	38.9 µg/L	97%		9901-91	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9902-87	1	
Dichloroacetic acid	Secondary Source Std	20.0	20.4 µg/L	102%		9902-88	1	70-130%
Dichloroacetic acid	Standard	20.0	18.9 µg/L	94%		9902-89	1	80-120%
Dichloroacetic acid	Standard	20.0	19.4 µg/L	97%		9902-89	1	80-120%
Dichloroacetic acid	Standard	20.0	19.8 µg/L	99%		9902-89	1	80-120%
Dichloroacetic acid	Standard	40.0	41.1 µg/L	103%		9902-90	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9902-73	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9902-87	1	
Monobromoacetic acid	Secondary Source Std	20.0	20.9 µg/L	104%		9902-88	1	70-130%
Monobromoacetic acid	Standard	20.0	19.1 µg/L	96%		9902-89	1	80-120%
Monobromoacetic acid	Standard	20.0	18.8 µg/L	94%		9902-89	1	80-120%
Monobromoacetic acid	Standard	20.0	20.4 µg/L	102%		9902-89	1	80-120%
Monobromoacetic acid	Standard	40.0	39.5 µg/L	99%		9902-90	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9902-73	2	
Monochloroacetic acid	Matrix Spike	40.0	42.5 µg/L	106%		9901-91	2	
Monochloroacetic acid	Method Blank		ND* µg/L			9902-87	2	
Monochloroacetic acid	Secondary Source Std	20.0	22.0 µg/L	110%		9902-88	2	70-130%
Monochloroacetic acid	Standard	20.0	20.0 µg/L	100%		9902-89	2	80-120%
Monochloroacetic acid	Standard	20.0	19.7 µg/L	98%		9902-89	2	80-120%

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Study Title: ICR RSSCT #4

Monochloroacetic acid	Standard	20.0	19.3	µg/L	97%		9902-89	2	80-120%
Monochloroacetic acid	Standard	40.0	40.3	µg/L	101%		9902-90	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND	µg/L		NA	9902-73	4	
Tribromoacetic acid	Matrix Spike	40.0	36.7	µg/L	92%		9901-91	4	
Tribromoacetic acid	Method Blank		ND*	µg/L			9902-87	4	
Tribromoacetic acid	Secondary Source Std		ND	µg/L			9902-88	4	70-130%
Tribromoacetic acid	Standard	20.0	18.4	µg/L	92%		9902-89	4	80-120%
Tribromoacetic acid	Standard	20.0	19.7	µg/L	98%		9902-89	4	80-120%
Tribromoacetic acid	Standard	20.0	20.8	µg/L	104%		9902-89	4	80-120%
Tribromoacetic acid	Standard	40.0	43.8	µg/L	110%		9902-90	4	80-120%
Trichloroacetic acid	Duplicate	2.9	3.3	µg/L		12.9%	9902-73	1	
Trichloroacetic acid	Matrix Spike	40.0	44.3	µg/L	111%		9901-91	1	
Trichloroacetic acid	Method Blank		ND*	µg/L			9902-87	1	
Trichloroacetic acid	Secondary Source Std	20.0	16.1	µg/L	81%		9902-88	1	70-130%
Trichloroacetic acid	Standard	20.0	18.9	µg/L	94%		9902-89	1	80-120%
Trichloroacetic acid	Standard	20.0	19.0	µg/L	95%		9902-89	1	80-120%
Trichloroacetic acid	Standard	20.0	18.7	µg/L	93%		9902-89	1	80-120%
Trichloroacetic acid	Standard	40.0	41.1	µg/L	103%		9902-90	1	80-120%

Analysis: HAA-ICR (Haloacetic Acids) **Method:** EPA 552.2

QC Batch ID: 0-308-0

									Acceptance Criteria	
QC Type		**Spike**	**Recovery**	**Unit**	**Yield**	**RPD**	**S&H ID**	**MRL**	**Range**	**RPD**
Bromochloroacetic acid	Duplicate	6.3	5.9	µg/L		6.6%	9902-114	1		
Bromochloroacetic acid	Matrix Spike	40.0	41.9	µg/L	105%		9901-80	1		
Bromochloroacetic acid	Method Blank		ND*	µg/L			9902-161	1		
Bromochloroacetic acid	Secondary Source Std	20.0	19.0	µg/L	95%		9902-162	1	70-130%	
Bromochloroacetic acid	Standard	20.0	19.3	µg/L	97%		9902-163	1	80-120%	
Bromochloroacetic acid	Standard	20.0	19.9	µg/L	99%		9902-163	1	80-120%	
Bromochloroacetic acid	Standard	40.0	40.5	µg/L	101%		9902-164	1	80-120%	
Bromodichloroacetic acid	Duplicate	ND	ND	µg/L		NA	9902-114	1		
Bromodichloroacetic acid	Matrix Spike	40.0	33.2	µg/L	83%		9901-80	1		
Bromodichloroacetic acid	Method Blank		ND*	µg/L			9902-161	1		
Bromodichloroacetic acid	Secondary Source Std		ND	µg/L			9902-162	1	70-130%	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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Bromodichloroacetic acid	Standard	20.0	17.1 µg/L	86%		9902-163	1	80-120%
Bromodichloroacetic acid	Standard	20.0	17.8 µg/L	89%		9902-163	1	80-120%
Bromodichloroacetic acid	Standard	40.0	39.0 µg/L	97%		9902-164	1	80-120%
Chlorodibromoacetic acid	Duplicate	ND	ND µg/L		NA	9902-114	2	
Chlorodibromoacetic acid	Matrix Spike	40.0	32.2 µg/L	81%		9901-80	2	
Chlorodibromoacetic acid	Method Blank		ND* µg/L			9902-161	2	
Chlorodibromoacetic acid	Secondary Source Std		ND µg/L			9902-162	2	70-130%
Chlorodibromoacetic acid	Standard	20.0	16.6 µg/L	83%		9902-163	2	80-120%
Chlorodibromoacetic acid	Standard	20.0	16.7 µg/L	83%		9902-163	2	80-120%
Chlorodibromoacetic acid	Standard	40.0	37.9 µg/L	95%		9902-164	2	80-120%
Dibromoacetic acid	Duplicate	3.6	3.5 µg/L		2.8%	9902-114	1	
Dibromoacetic acid	Matrix Spike	40.0	39.5 µg/L	99%		9901-80	1	
Dibromoacetic acid	Method Blank		ND* µg/L			9902-161	1	
Dibromoacetic acid	Secondary Source Std	20.0	18.6 µg/L	93%		9902-162	1	70-130%
Dibromoacetic acid	Standard	20.0	18.6 µg/L	93%		9902-163	1	80-120%
Dibromoacetic acid	Standard	20.0	19.4 µg/L	97%		9902-163	1	80-120%
Dibromoacetic acid	Standard	40.0	40.3 µg/L	101%		9902-164	1	80-120%
Dichloroacetic acid	Duplicate	12.0	11.5 µg/L		4.3%	9902-114	1	
Dichloroacetic acid	Matrix Spike	40.0	42.7 µg/L	107%		9901-80	1	
Dichloroacetic acid	Method Blank		ND* µg/L			9902-161	1	
Dichloroacetic acid	Secondary Source Std	20.0	20.8 µg/L	104%		9902-162	1	70-130%
Dichloroacetic acid	Standard	20.0	19.3 µg/L	97%		9902-163	1	80-120%
Dichloroacetic acid	Standard	20.0	20.0 µg/L	100%		9902-163	1	80-120%
Dichloroacetic acid	Standard	40.0	40.9 µg/L	102%		9902-164	1	80-120%
Monobromoacetic acid	Duplicate	ND	ND µg/L		NA	9902-114	1	
Monobromoacetic acid	Matrix Spike	40.0	44.8 µg/L	112%		9901-80	1	
Monobromoacetic acid	Method Blank		ND* µg/L			9902-161	1	
Monobromoacetic acid	Secondary Source Std	20.0	21.8 µg/L	109%		9902-162	1	70-130%
Monobromoacetic acid	Standard	20.0	18.6 µg/L	93%		9902-163	1	80-120%
Monobromoacetic acid	Standard	20.0	20.1 µg/L	101%		9902-163	1	80-120%
Monobromoacetic acid	Standard	40.0	42.3 µg/L	106%		9902-164	1	80-120%
Monochloroacetic acid	Duplicate	ND	ND µg/L		NA	9902-114	2	
Monochloroacetic acid	Matrix Spike	40.0	43.5 µg/L	109%		9901-80	2	

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

Quality Control Report

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

Monochloroacetic acid	Method Blank		ND* µg/L			9902-161	2	
Monochloroacetic acid	Secondary Source Std	20.0	21.0 µg/L	105%		9902-162	2	70-130%
Monochloroacetic acid	Standard	20.0	18.2 µg/L	91%		9902-163	2	80-120%
Monochloroacetic acid	Standard	20.0	19.3 µg/L	97%		9902-163	2	80-120%
Monochloroacetic acid	Standard	40.0	40.2 µg/L	101%		9902-164	2	80-120%
Tribromoacetic acid	Duplicate	ND	ND µg/L		NA	9902-114	4	
Tribromoacetic acid	Matrix Spike	40.0	36.4 µg/L	91%		9901-80	4	
Tribromoacetic acid	Method Blank		ND* µg/L			9902-161	4	
Tribromoacetic acid	Secondary Source Std		ND µg/L			9902-162	4	70-130%
Tribromoacetic acid	Standard	20.0	17.4 µg/L	87%		9902-163	4	80-120%
Tribromoacetic acid	Standard	20.0	16.8 µg/L	84%		9902-163	4	80-120%
Tribromoacetic acid	Standard	40.0	37.0 µg/L	93%		9902-164	4	80-120%
Trichloroacetic acid	Duplicate	ND	ND µg/L		NA	9902-114	1	
Trichloroacetic acid	Matrix Spike	40.0	36.1 µg/L	90%		9901-80	1	
Trichloroacetic acid	Method Blank		ND* µg/L			9902-161	1	
Trichloroacetic acid	Secondary Source Std	20.0	18.1 µg/L	91%		9902-162	1	70-130%
Trichloroacetic acid	Standard	20.0	18.6 µg/L	93%		9902-163	1	80-120%
Trichloroacetic acid	Standard	20.0	19.4 µg/L	97%		9902-163	1	80-120%
Trichloroacetic acid	Standard	40.0	40.4 µg/L	101%		9902-164	1	80-120%

End of quality control report

ND: non-detect. *Recovery is below 1/2 minimum reporting level (MRL). NA (not applicable): RPD calculation is not applicable.

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QC Results from Montgomery Watson Laboratories

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Mr. Doug Robbins
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Phone: 336-375-2227 Fax: 336-375-2207

Study#: 205
Study Title: ICR RSSCT #4

QC Batch ID: 90976 **Report #:** 51271

Analysis: CA **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	51.2	102.0%		(85 - 115)
LCS2	Calcium, Total, ICAP	50	51.5	103.0%		(85 - 115)
MBLK	Calcium, Total, ICAP	ND	ND			
MS	Calcium, Total, ICAP	50	48.9	98.0%		(70 - 130)

QC Batch ID: 90981 **Report #:** 51271

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	20.7	104.0%		(85 - 115)
LCS2	Magnesium, Total, ICAP	20	20.8	104.0%		(85 - 115)
MBLK	Magnesium, Total, ICAP	ND	ND			
MS	Magnesium, Total, ICAP	20	20.1	100.0%		(70 - 130)

QC Batch ID: 91036 **Report #:** 51271

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	1.06	106.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	1.08	108.0%		(80 - 120)
MBLK	Ammonia Nitrogen	ND	ND			
MS	Ammonia Nitrogen	1	1.08	108.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	1.1	110.0%		(80 - 120)

QC Batch ID: 91236 **Report #:** 51271

Analysis: BR **Method:** ML/EPA 300

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Bromide	0.02	0.02	100.0%		(50 - 150)
LCS2	Bromide	0.1	0.1	100.0%		(90 - 110)
MBLK	Bromide	ND	ND			(70 - 130)
MS	Bromide	0.1	0.102	102.0%		(80 - 120)
MSD	Bromide	0.1	0.102	102.0%		(80 - 120)

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

QC Results from Montgomery Watson Laboratories

Mr. Doug Robbins
City of Greensboro

Study#: 205
Study Title: ICR RSSCT #4

QC Batch ID: 91913 **Report #:** 51651

Analysis: CA **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Calcium, Total, ICAP	50	49.7	99.0%		(85 - 115)
LCS2	Calcium, Total, ICAP	50	49.9	100.0%		(85 - 115)
MBLK	Calcium, Total, ICAP	ND	ND			
MS	Calcium, Total, ICAP	50	53.2	106.0%		(70 - 130)

QC Batch ID: 91916 **Report #:** 51651

Analysis: MG **Method:** ML/EPA 200.7

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Magnesium, Total, ICAP	20	20.3	102.0%		(85 - 115)
LCS2	Magnesium, Total, ICAP	20	19.9	100.0%		(85 - 115)
MBLK	Magnesium, Total, ICAP	ND	ND			
MS	Magnesium, Total, ICAP	20	21	105.0%		(70 - 130)

QC Batch ID: 91959 **Report #:** 51651

Analysis: NH3 **Method:** ML/EPA 350.1

QC	Analyte	Spike	Recovery	Yield	RPD	Acceptance Criteria Range
LCS1	Ammonia Nitrogen	1	1.05	105.0%		(80 - 120)
LCS2	Ammonia Nitrogen	1	1.06	106.0%		(80 - 120)
MBLK	Ammonia Nitrogen	ND	ND			
MS	Ammonia Nitrogen	1	1.02	102.0%		(80 - 120)
MSD	Ammonia Nitrogen	1	1.04	104.0%		(80 - 120)

End of MW QC report

ND (non-detect): Result is below 1/2 minimum reporting level (MRL).

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Comments

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Study#: 205
Study Title: ICR RSSCT #4

Analysis comments

Analysis: Turbidity
Method: SM 2130 B

Reported turbidity data has been rounded following the requirements of SM 2130 B, reproduced in the table below (Standard Methods, 1995). Note that the reported digits are not necessarily significant.

Turbidity Range	Report to Nearest
0-1.0	0.05
1-10	0.1
10-40	1
40-100	5
100-400	10
400-1000	50
> 1000	100

QC comments

QCBatch: 0-323-0 **Description:** MW Labs Report # 51651

From MW Labs: "9901-99 Sample was displaced and could not be located (Bromide)"

End of comments