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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 04/14/2016

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110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386795
Priority: Weekend or Holiday
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3675686	1S Q2905	218.6	04/17/17 10:08	Client	04/17/17 18:30
3675687	1SD Q2906	218.6	04/17/17 10:10	Client	04/17/17 18:30
3675688	2S Q2907	218.6	04/17/17 10:40	Client	04/17/17 18:30
3675689	3S Q2908	218.6	04/17/17 11:08	Client	04/17/17 18:30
3675690	3SD Q2909	218.6	04/17/17 11:09	Client	04/17/17 18:30
3675691	26 Q2910	218.6	04/17/17 11:20	Client	04/17/17 18:30
3675692	27 Q2911	218.6	04/17/17 11:27	Client	04/17/17 18:30
3675693	28 Q2912	218.6	04/17/17 11:35	Client	04/17/17 18:30
3675694	28D Q2913	218.6	04/17/17 11:36	Client	04/17/17 18:30
3675695	29 Q2914	218.6	04/17/17 11:43	Client	04/17/17 18:30
3675696	30 Q2915	218.6	04/17/17 11:52	Client	04/17/17 18:30
3675697	31 Q2916	218.6	04/17/17 12:00	Client	04/17/17 18:30
3675698	32 Q2917	218.6	04/17/17 12:09	Client	04/17/17 18:30
3675699	33 Q2918	218.6	04/17/17 12:15	Client	04/17/17 18:30
3675700	33D Q2919	218.6	04/17/17 12:16	Client	04/17/17 18:30
3675701	34 Q2920	218.6	04/17/17 12:25	Client	04/17/17 18:30
3675702	35 Q2921	218.6	04/17/17 12:31	Client	04/17/17 18:30
3675703	36 Q2922	218.6	04/17/17 12:38	Client	04/17/17 18:30
3675704	36D Q2923	218.6	04/17/17 12:39	Client	04/17/17 18:30

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

C.S. Manager 04/19/2017

Authorized Signature Title Date

Client Name: Environmental Monitoring Technologies

Report #: 386795

Sampling Point: 1S Q2905

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 12:19	3675686

Sampling Point: 1SD Q2906

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/18/17 12:32	3675687

Sampling Point: 2S Q2907

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.18**	ug/L	---	04/18/17 12:45	3675688

Sampling Point: 3S Q2908

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 12:58	3675689

Sampling Point: 3SD Q2909

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 13:11	3675690

Sampling Point: 26 Q2910

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.18**	ug/L	---	04/18/17 13:24	3675691

Client Name: Environmental Monitoring Technologies Report #: 386795

Sampling Point: 27 Q2911 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 13:37	3675692

Sampling Point: 28 Q2912 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 13:50	3675693

Sampling Point: 28D Q2913 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 14:03	3675694

Sampling Point: 29 Q2914 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 14:16	3675695

Sampling Point: 30 Q2915 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 15:21	3675696

Sampling Point: 31 Q2916 PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 15:34	3675697

Client Name: Environmental Monitoring Technologies

Report #: 386795

Sampling Point: 32 Q2917

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 15:47	3675698

Sampling Point: 33 Q2918

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 16:00	3675699

Sampling Point: 33D Q2919

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/18/17 16:13	3675700

Sampling Point: 34 Q2920

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/18/17 16:26	3675701

Sampling Point: 35 Q2921

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 16:39	3675702

Sampling Point: 36 Q2922

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/18/17 16:52	3675703

Client Name: Environmental Monitoring Technologies

Report #: 386795

Sampling Point: 36D Q2923

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/18/17 17:05	3675704

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

386795

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
_____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21933

Company: City of Chicago Dept. of Water Management
Address: 1000 E Ohio St
Chicago, IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: _____ Proj. #: ____-____
Client Contact: Alan Stark (312) 617-4233
Project ID / Location: Cr 6+ Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag _____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH buffer

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium						EMT USE ONLY		EMT WORKORDER #
1S Q2905	8		P		VS	4/17/17	1008		12			✓						3675686		
1SD Q2906	8		P		VS	4/17/17	1010		12			✓						687		
2S Q2907	8		P		VS	4/17/17	1040		10			✓						688		
3S Q2908	8		P		VS	4/17/17	1108		13			✓						689		
3SD Q2909	8		P		VS	4/17/17	1109		13			✓						690		
26 Q2910	8		P		VS	4/17/17	1120		13			✓						691		
27 Q2911	8		P		VS	4/17/17	1127		12			✓						692		
28 Q2912	8		P		VS	4/17/17	1135		13			✓						693		
28D Q2913	8		P		VS	4/17/17	1136		13			✓						694		
29 Q2914	8		P		VS	4/17/17	1143		12			✓						695		

Relinquished By: [signature]	Date: 4-17-17 Time: 18:30	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: [signature]	Date: 4-17-17 Time: 6:30	Jar Lot No.

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21935

Company: City of Chicago Dept. of Water Mgmt.
Address: 1000 E Ohio St
Chicago, IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: Alan Stark (312) 617-4233
Project ID / Location: Cr 6+ Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH buffer

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium									EMT USE ONLY / EMT WORKORDER #
30 Q2915	8		P		VS	4/17/17	1152		13			✓						3675696			
31 Q2916	8		P		VS	4/17/17	1200		13			✓								697	
32 Q2917	8		P		VS	4/17/17	1209		12			✓								698	
33 Q2918	8		P		VS	4/17/17	1215		12			✓								699	
33D Q2919	8		P		VS	4/17/17	1216		12			✓								700	
34 Q2920	8		P		VS	4/17/17	1225		12			✓								701	
35 Q2921	8		P		VS	4/17/17	1231		12			✓								702	
36 Q2922	8		P		VS	4/17/17	1238		12			✓								703	
36D Q2923	8		P		VS	4/17/17	1239		12			✓								704	
			P		VS	4/17/17															

Relinquished By:	Date: 4-17-17 Time: 18:30	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-17-17 Time: 6:30	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

EMT-FORM-GEN-028

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Run Log

Run ID: **228298** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3676427		RW	DP	04/18/2017 11:14	
IPC	3676429		RW	DP	04/18/2017 11:40	
LRB	3676430		RW	DP	04/18/2017 11:53	
LFB	3676431		RW	DP	04/18/2017 12:06	
FS	3675686	1S Q2905	SW	DP	04/18/2017 12:19	
FS	3675687	1SD Q2906	SW	DP	04/18/2017 12:32	
FS	3675688	2S Q2907	SW	DP	04/18/2017 12:45	
FS	3675689	3S Q2908	SW	DP	04/18/2017 12:58	
FS	3675690	3SD Q2909	SW	DP	04/18/2017 13:11	
FS	3675691	26 Q2910	SW	DP	04/18/2017 13:24	
FS	3675692	27 Q2911	SW	DP	04/18/2017 13:37	
FS	3675693	28 Q2912	SW	DP	04/18/2017 13:50	
FS	3675694	28D Q2913	SW	DP	04/18/2017 14:03	
FS	3675695	29 Q2914	SW	DP	04/18/2017 14:16	
MS	3676432	29 Q2914	SW	DP	04/18/2017 14:29	
MSD	3676433	29 Q2914	SW	DP	04/18/2017 14:42	
IPC	3676434		RW	DP	04/18/2017 14:55	
CCB	3676435		RW	DP	04/18/2017 15:08	
FS	3675696	30 Q2915	SW	DP	04/18/2017 15:21	
FS	3675697	31 Q2916	SW	DP	04/18/2017 15:34	
FS	3675698	32 Q2917	SW	DP	04/18/2017 15:47	
FS	3675699	33 Q2918	SW	DP	04/18/2017 16:00	
FS	3675700	33D Q2919	SW	DP	04/18/2017 16:13	
FS	3675701	34 Q2920	SW	DP	04/18/2017 16:26	
FS	3675702	35 Q2921	SW	DP	04/18/2017 16:39	
FS	3675703	36 Q2922	SW	DP	04/18/2017 16:52	
FS	3675704	36D Q2923	SW	DP	04/18/2017 17:05	
MS	3676436	36D Q2923	SW	DP	04/18/2017 17:18	
MSD	3676437	36D Q2923	SW	DP	04/18/2017 17:31	
IPC	3676438		RW	DP	04/18/2017 17:44	
CCB	3676439		RW	DP	04/18/2017 17:57	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	---		1.0522	1.0	ug/L	105	90 - 110	---	---	1.0	---	04/18/2017 11:14	3676427
IPC	Chromium, Hexavalent	218.6	0.02	---		1.0101	1.0	ug/L	101	90 - 110	---	---	1.0	---	04/18/2017 11:40	3676429
LRB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/18/2017 11:53	3676430
LFB	Chromium, Hexavalent	218.6	0.02	---		1.0187	1.0	ug/L	102	90 - 110	---	---	1.0	---	04/18/2017 12:06	3676431
FS	Chromium, Hexavalent	218.6	0.02	1S Q2905		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 12:19	3675686
FS	Chromium, Hexavalent	218.6	0.02	1SD Q2906		0.16		ug/L	---	---	---	---	1.0	---	04/18/2017 12:32	3675687
FS	Chromium, Hexavalent	218.6	0.02	2S Q2907		0.18		ug/L	---	---	---	---	1.0	---	04/18/2017 12:45	3675688
FS	Chromium, Hexavalent	218.6	0.02	3S Q2908		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 12:58	3675689
FS	Chromium, Hexavalent	218.6	0.02	3SD Q2909		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 13:11	3675690
FS	Chromium, Hexavalent	218.6	0.02	26 Q2910		0.18		ug/L	---	---	---	---	1.0	---	04/18/2017 13:24	3675691
FS	Chromium, Hexavalent	218.6	0.02	27 Q2911		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 13:37	3675692
FS	Chromium, Hexavalent	218.6	0.02	28 Q2912		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 13:50	3675693
FS	Chromium, Hexavalent	218.6	0.02	28D Q2913		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 14:03	3675694
FS	Chromium, Hexavalent	218.6	0.02	29 Q2914		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 14:16	3675695
MS	Chromium, Hexavalent	218.6	0.02	29 Q2914		1.1537	1.1703	ug/L	98	90 - 110	---	---	1.0	---	04/18/2017 14:29	3676432
MSD	Chromium, Hexavalent	218.6	0.02	29 Q2914		1.1406	1.1703	ug/L	97	90 - 110	1.1	10	1.0	---	04/18/2017 14:42	3676433
IPC	Chromium, Hexavalent	218.6	0.02	---		1.0091	1.0	ug/L	101	90 - 110	---	---	1.0	---	04/18/2017 14:55	3676434
CCB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/18/2017 15:08	3676435
FS	Chromium, Hexavalent	218.6	0.02	30 Q2915		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 15:21	3675696
FS	Chromium, Hexavalent	218.6	0.02	31 Q2916		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 15:34	3675697
FS	Chromium, Hexavalent	218.6	0.02	32 Q2917		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 15:47	3675698
FS	Chromium, Hexavalent	218.6	0.02	33 Q2918		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 16:00	3675699
FS	Chromium, Hexavalent	218.6	0.02	33D Q2919		0.16		ug/L	---	---	---	---	1.0	---	04/18/2017 16:13	3675700
FS	Chromium, Hexavalent	218.6	0.02	34 Q2920		0.16		ug/L	---	---	---	---	1.0	---	04/18/2017 16:26	3675701
FS	Chromium, Hexavalent	218.6	0.02	35 Q2921		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 16:39	3675702
FS	Chromium, Hexavalent	218.6	0.02	36 Q2922		0.17		ug/L	---	---	---	---	1.0	---	04/18/2017 16:52	3675703
FS	Chromium, Hexavalent	218.6	0.02	36D Q2923		0.16		ug/L	---	---	---	---	1.0	---	04/18/2017 17:05	3675704
MS	Chromium, Hexavalent	218.6	0.02	36D Q2923		1.1554	1.160299	ug/L	100	90 - 110	---	---	1.0	---	04/18/2017 17:18	3676436
MSD	Chromium, Hexavalent	218.6	0.02	36D Q2923		1.1548	1.160299	ug/L	99	90 - 110	0.1	10	1.0	---	04/18/2017 17:31	3676437
IPC	Chromium, Hexavalent	218.6	0.02	---		0.9838	1.0	ug/L	98	90 - 110	---	---	1.0	---	04/18/2017 17:44	3676438
CCB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/18/2017 17:57	3676439

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 04/14/2016

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110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386851
Priority: Weekend or Holiday
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3676134	Crib	218.6	04/17/17 12:00	Client	04/18/17 13:30
3676135	Crib	218.6	04/17/17 18:00	Client	04/18/17 13:30
3676136	Crib	218.6	04/18/17 00:00	Client	04/18/17 13:30
3676137	Crib	218.6	04/18/17 06:00	Client	04/18/17 13:30

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Jessie Brasch at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Jessie Brasch — Analytical Services Manager — 04/19/2017

Authorized Signature — Title — Date

Client Name: Environmental Monitoring Technologies
Report #: 386851

Client Name: Environmental Monitoring Technologies

Report #: 386851

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/18/17 19:15	3676134

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/18/17 19:28	3676135

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/18/17 19:41	3676136

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/18/17 19:54	3676137

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

318104

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☑ RUSH
____ day turnaround
☐ ROUTINE

386851

Due Date: ____-____-____ COC #: 21910

Company: CHICAGO DEPARTMENT OF WATER MANAGEMENT
Address: 1000 E OHIO STREET
CHICAGO IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: ALAN STARK 312-617-4233
Project ID / Location: SWEEP CRIB CR6+ SURVEY

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH BUFFER

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	HEXAVALENT CR6+									EMT USE ONLY / EMT WORKORDER #
Crib	8	100mL	P	1	CK	4-17-17	1200			8<		✓		pH 8.7-9.0							3676 134
Crib	8	100mL	P	1	AB	4-17-17	1800			8		✓				25					135
Crib	8	100mL	P	1	CMS	4-18-17	0000			8		✓									136
Crib	8	100mL	P	1	CMS	4-18-17	0600			8		✓									137

RUSH

Client Provided Sample Container

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY
Chris Hunzeker	4-18-17 Time: 09:30	Ted Zulinski	4-18-17 Time: 9:30	Client Code:
Ted Zulinski	4-18-17 Time: 1:30 PM	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: S. Hagan	Date: 4-18-17 Time: 13:30	Jar Lot No.

☒ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
3.2
EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: DELIVER SAMPLES TO ENVIRONS LAB FOR ANALYSIS

EMT-FORM-GEN-028

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Eurofins Eaton Analytical
Run Log

Run ID: **228311** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3676670		RW	DP	04/18/2017 18:10	
IPC	3676672		RW	DP	04/18/2017 18:36	
LRB	3676673		RW	DP	04/18/2017 18:49	
LFB	3676674		RW	DP	04/18/2017 19:02	
FS	3676134	Crib	SW	DP	04/18/2017 19:15	
FS	3676135	Crib	SW	DP	04/18/2017 19:28	
FS	3676136	Crib	SW	DP	04/18/2017 19:41	
FS	3676137	Crib	SW	DP	04/18/2017 19:54	
MS	3676647	Crib	SW	DP	04/18/2017 20:07	
MSD	3676648	Crib	SW	DP	04/18/2017 20:20	
IPC	3676675		RW	DP	04/18/2017 20:33	
CCB	3676676		RW	DP	04/18/2017 20:46	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	---		1.0239	1.0	ug/L	102	90 - 110	---	---	1.0	---	04/18/2017 18:10	3676670
IPC	Chromium, Hexavalent	218.6	0.02	---		0.9978	1.0	ug/L	100	90 - 110	---	---	1.0	---	04/18/2017 18:36	3676672
LRB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/18/2017 18:49	3676673
LFB	Chromium, Hexavalent	218.6	0.02	---		1.0086	1.0	ug/L	101	90 - 110	---	---	1.0	---	04/18/2017 19:02	3676674
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/18/2017 19:15	3676134
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	---	---	---	---	1.0	---	04/18/2017 19:28	3676135
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/18/2017 19:41	3676136
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	---	---	---	---	1.0	---	04/18/2017 19:54	3676137
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1320	1.162399	ug/L	97	90 - 110	---	---	1.0	---	04/18/2017 20:07	3676647
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1196	1.162399	ug/L	96	90 - 110	1.1	10	1.0	---	04/18/2017 20:20	3676648
IPC	Chromium, Hexavalent	218.6	0.02	---		1.0088	1.0	ug/L	101	90 - 110	---	---	1.0	---	04/18/2017 20:33	3676675
CCB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/18/2017 20:46	3676676

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 04/14/2016

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110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386779
Priority: Weekend or Holiday
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3675348	Crib	218.6	04/14/17 10:00	Client	04/17/17 12:50
3675349	Crib	218.6	04/14/17 12:00	Client	04/17/17 12:50
3675350	Crib	218.6	04/14/17 14:00	Client	04/17/17 12:50
3675351	Crib	218.6	04/15/17 12:00	Client	04/17/17 12:50
3675352	Crib	218.6	04/15/17 14:00	Client	04/17/17 12:50
3675353	Crib	218.6	04/15/17 16:00	Client	04/17/17 12:50
3675354	Crib	218.6	04/15/17 18:00	Client	04/17/17 12:50
3675355	Crib	218.6	04/15/17 20:00	Client	04/17/17 12:50
3675356	Crib	218.6	04/15/17 22:00	Client	04/17/17 12:50
3675357	Crib	218.6	04/16/17 00:00	Client	04/17/17 12:50
3675358	Crib	218.6	04/14/17 16:00	Client	04/17/17 12:50
3675359	Crib	218.6	04/14/17 18:00	Client	04/17/17 12:50
3675360	Crib	218.6	04/14/17 20:00	Client	04/17/17 12:50
3675361	Crib	218.6	04/14/17 22:00	Client	04/17/17 12:50
3675362	Crib	218.6	04/15/17 00:00	Client	04/17/17 12:50
3675363	Crib	218.6	04/15/17 02:00	Client	04/17/17 12:50
3675364	Crib	218.6	04/15/17 04:00	Client	04/17/17 12:50
3675365	Crib	218.6	04/15/17 06:00	Client	04/17/17 12:50
3675366	Crib	218.6	04/15/17 08:00	Client	04/17/17 12:50
3675367	Crib	218.6	04/15/17 10:00	Client	04/17/17 12:50
3675368	Crib	218.6	04/16/17 02:00	Client	04/17/17 12:50
3675369	Crib	218.6	04/16/17 04:00	Client	04/17/17 12:50
3675370	Crib	218.6	04/16/17 06:00	Client	04/17/17 12:50
3675371	Crib	218.6	04/16/17 08:00	Client	04/17/17 12:50
3675372	Crib	218.6	04/16/17 10:00	Client	04/17/17 12:50
3675373	Crib	218.6	04/16/17 12:00	Client	04/17/17 12:50
3675374	Crib	218.6	04/16/17 18:00	Client	04/17/17 12:50
3675375	Crib	218.6	04/17/17 00:00	Client	04/17/17 12:50
3675376	Crib	218.6	04/17/17 06:00	Client	04/17/17 12:50

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Jessie Brasch at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Jessie Brasch Analytical Services Manager 04/19/2017

Authorized Signature Title Date

Client Name: Environmental Monitoring Technologies

Report #: 386779

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/17/17 17:09	3675348

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.13**	ug/L	---	04/17/17 17:22	3675349

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 17:35	3675350

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 17:48	3675351

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 18:01	3675352

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/17/17 18:14	3675353

Client Name: Environmental Monitoring Technologies

Report #: 386779

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/17/17 18:27	3675354

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.13**	ug/L	---	04/17/17 18:40	3675355

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 18:53	3675356

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 19:06	3675357

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 20:11	3675358

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 20:24	3675359

Client Name: Environmental Monitoring Technologies

Report #: 386779

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 20:37	3675360

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/17/17 20:50	3675361

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 21:03	3675362

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 21:16	3675363

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 21:29	3675364

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/17/17 21:42	3675365

Client Name: Environmental Monitoring Technologies Report #: 386779

Sampling Point: Crib PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 21:55	3675366

Sampling Point: Crib PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/17/17 22:08	3675367

Sampling Point: Crib PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/17/17 23:39	3675368

Sampling Point: Crib PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/17/17 23:52	3675369

Sampling Point: Crib PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/18/17 00:05	3675370

Sampling Point: Crib PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/18/17 00:18	3675371

Client Name: Environmental Monitoring Technologies

Report #: 386779

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/18/17 00:31	3675372

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/18/17 00:44	3675373

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/18/17 00:57	3675374

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/18/17 01:10	3675375

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/18/17 01:23	3675376

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☑ RUSH
____ day turnaround
☐ ROUTINE

318050
386779

Due Date: ____-____-____ COC #: 21908

Company: Chicago Department of Water Management
Address: 1000 E. Ohio Street
Chicago IL 60611

Phone #: (312) 744 - 7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: Alan Stark 312-617-4233
Project ID / Location: SLUPP CRIB Grt Survey

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface Water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other Buffer
3. HNO_3 6. MeOH

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Cr	EMT USE ONLY / EMT WORKORDER #
Crib 3675348	8	100mL	P	1	CK	4-14-17	1000	pH=9		8		✓	
Crib 349	8	100mL	P	1	CK	4-14-17	1200			8		✓	
Crib 350	8	100mL	P	1	CK	4-14-17	1400			8		✓	
Crib 351	8	100mL	P	1	CK	4-15-17	1200			8		✓	
Crib 352	8	100mL	P	1	CK	4-15-17	1400			8		✓	
Crib 353	8	100mL	P	1	CK	4-15-17	1600			8		✓	
Crib 354	8	100mL	P	1	CK	4-15-17	1800			8		✓	
Crib 355	8	100mL	P	1	CK	4-15-17	2000			8		✓	
Crib 356	8	100mL	P	1	CK	4-15-17	2200			8		✓	
Crib 357	8	100mL	P	1	DB	4-16-17	0000			8		✓	

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY
Chris Kunigita	4-17-17 Time: 08:30	Ted Zielinski	4-17-17 Time: 8:30A	Client Code:
Ted Zielinski	4-17-17 Time: 12:50P	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: S. Lyon	Date: 4-17-17 Time: 12:50	Jar Lot No.

☒ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
0.6°C

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: Drive Samples to Eurofins Lab for Analysis

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☑ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21903

Company: Chicago Department of Water
Address: 1000 E. Ohio Street
Chicago IL 60611

Phone #: (312) 744-7233 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: Alan Stark 312-617-4233
Project ID / Location: Swpp Crib Cr-6 + Silver

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface Water (SW)

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH Buffer

Analyses: Hexavalent Cr-6

EMT USE ONLY

EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Cr-6
Crib 3675358	S	100ml	P	1	CMS	4-4-17	1600	pH=9				✓
Crib 359	S	100ml	P	1	CMS	4-4-17	1800					✓
Crib 360	S	100ml	P	1	CMS	4-4-17	2000					✓
Crib 361	S	100ml	P	1	CMS	4-4-17	2200					✓
Crib 362	S	100ml	P	1	CMS	4-5-17	0000					✓
Crib 363	S	100ml	P	1	CMS	4-5-17	0200					✓
Crib 364	S	100ml	P	1	CMS	4-5-17	0400					✓
Crib 365	S	100ml	P	1	CMS	4-5-17	0600					✓
Crib 366	S	100mL	P	1	CK	4-15-17	0800					✓
Crib 367	S	100mL	P	1	CK	4-15-17	1000					✓

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY
Chris Thompson	4-17-17 Time: 08:30	Ted Zielinski	4-17-17 Time: 8:30A	Client Code:
Ted Zielinski	4-17-17 Time: 12:50P	Received By:	- - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: Sheila	Date: 4-17-17 Time: 12:50	Jar Lot No.

☑ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
0.6°C

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: Drive Samples to Eurofins lab for Analysis

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☑ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21909

Company: Chicago Department of Water Management
Address: 1000 E. Ohio Street
Chicago IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: Alan Stark 312-617-4233
Project ID / Location: SWPP Crib Crab Survey

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface Water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH Buffer

Analyses: Hexavalent Cr 6+

EMT USE ONLY
EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Cr 6+
Crib3675368	8	100mL	P	1	DB	4-16-17	0200	PH-9		8		✓
Crib 369	8	100mL	P	1	DB	4-16-17	0400			8		✓
Crib 370	8	100mL	P	1	DB	4-16-17	0600			8		✓
Crib 371	8	100mL	P	1	CK	4-16-17	0800			8		✓
Crib 372	8	100mL	P	1	CK	4-16-17	1000			8		✓
Crib 373	8	100mL	P	1	CK	4-16-17	1200			8		✓
Crib 374	8	100mL	P	1	AB	4-16-17	1800	1800		8 Borax		✓ KD
Crib 375	8	100mL	P	1	DB	4-17-17	0000			8		✓
Crib 376	8	100mL	P	1	DB	4-17-17	0600	✓		8		✓
~~Crib~~	~~8~~					~~4-17-17~~	~~0500~~		4-17-2017	KD		

Relinquished By:	Date/Time	Received By:	Date/Time	EMT USE ONLY
Chris Kwiatkowski	Date: 4-17-17 Time: 08:30	Ted Zielinski	Date: 4-17-17 Time: 8:30A	Client Code:
Ted Zielinski	Date: 4-17-17 Time: 12:50p	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: SLyon	Date: 4-17-17 Time: 12:50	Jar Lot No.

☒ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
0.6°C

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: Drive Samples to Eurofins Lab for Analysis

EMT-FORM-GEN-028

eurofins | Eaton Analytical

Eurofins Eaton Analytical
Run Log

Run ID: **228266** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3675721		RW	DP	04/17/2017 16:01	
IPC	3675723		RW	DP	04/17/2017 16:27	
LRB	3675724		RW	DP	04/17/2017 16:40	
LFB	3675725		RW	DP	04/17/2017 16:53	
FS	3675348	Crib	SW	DP	04/17/2017 17:09	
FS	3675349	Crib	SW	DP	04/17/2017 17:22	
FS	3675350	Crib	SW	DP	04/17/2017 17:35	
FS	3675351	Crib	SW	DP	04/17/2017 17:48	
FS	3675352	Crib	SW	DP	04/17/2017 18:01	
FS	3675353	Crib	SW	DP	04/17/2017 18:14	
FS	3675354	Crib	SW	DP	04/17/2017 18:27	
FS	3675355	Crib	SW	DP	04/17/2017 18:40	
FS	3675356	Crib	SW	DP	04/17/2017 18:53	
FS	3675357	Crib	SW	DP	04/17/2017 19:06	
MS	3675726	Crib	SW	DP	04/17/2017 19:19	
MSD	3675727	Crib	SW	DP	04/17/2017 19:32	
IPC	3675728		RW	DP	04/17/2017 19:45	
CCB	3675729		RW	DP	04/17/2017 19:58	
FS	3675358	Crib	SW	DP	04/17/2017 20:11	
FS	3675359	Crib	SW	DP	04/17/2017 20:24	
FS	3675360	Crib	SW	DP	04/17/2017 20:37	
FS	3675361	Crib	SW	DP	04/17/2017 20:50	
FS	3675362	Crib	SW	DP	04/17/2017 21:03	
FS	3675363	Crib	SW	DP	04/17/2017 21:16	
FS	3675364	Crib	SW	DP	04/17/2017 21:29	
FS	3675365	Crib	SW	DP	04/17/2017 21:42	
FS	3675366	Crib	SW	DP	04/17/2017 21:55	
FS	3675367	Crib	SW	DP	04/17/2017 22:08	
MS	3675730	Crib	SW	DP	04/17/2017 22:21	
MSD	3675731	Crib	SW	DP	04/17/2017 22:34	
IPC	3675732		RW	DP	04/17/2017 22:47	
CCB	3675733		RW	DP	04/17/2017 23:00	
LRB	3675734		RW	DP	04/17/2017 23:13	

LFB	3675735		RW	DP	04/17/2017 23:26
FS	3675368	Crib	SW	DP	04/17/2017 23:39
FS	3675369	Crib	SW	DP	04/17/2017 23:52
FS	3675370	Crib	SW	DP	04/18/2017 00:05
FS	3675371	Crib	SW	DP	04/18/2017 00:18
FS	3675372	Crib	SW	DP	04/18/2017 00:31
FS	3675373	Crib	SW	DP	04/18/2017 00:44
FS	3675374	Crib	SW	DP	04/18/2017 00:57
FS	3675375	Crib	SW	DP	04/18/2017 01:10
FS	3675376	Crib	SW	DP	04/18/2017 01:23
MS	3675736	Crib	SW	DP	04/18/2017 01:36
MSD	3675737	Crib	SW	DP	04/18/2017 01:49
IPC	3675738		RW	DP	04/18/2017 02:02
CCB	3675739		RW	DP	04/18/2017 02:15

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	---		1.0460	1.0	ug/L	105	90 - 110	---	---	1.0	---	04/17/2017 16:01	3675721
IPC	Chromium, Hexavalent	218.6	0.02	---		1.0227	1.0	ug/L	102	90 - 110	---	---	1.0	---	04/17/2017 16:27	3675723
LRB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/17/2017 16:40	3675724
LFB	Chromium, Hexavalent	218.6	0.02	---		1.0023	1.0	ug/L	100	90 - 110	---	---	1.0	---	04/17/2017 16:53	3675725
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/17/2017 17:09	3675348
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.13		ug/L	---	---	---	---	1.0	---	04/17/2017 17:22	3675349
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 17:35	3675350
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 17:48	3675351
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 18:01	3675352
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/17/2017 18:14	3675353
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/17/2017 18:27	3675354
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.13		ug/L	---	---	---	---	1.0	---	04/17/2017 18:40	3675355
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 18:53	3675356
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 19:06	3675357
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1405	1.142699	ug/L	100	90 - 110	---	---	1.0	---	04/17/2017 19:19	3675726
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1485	1.142699	ug/L	101	90 - 110	0.7	10	1.0	---	04/17/2017 19:32	3675727
IPC	Chromium, Hexavalent	218.6	0.02	---		1.0064	1.0	ug/L	101	90 - 110	---	---	1.0	---	04/17/2017 19:45	3675728
CCB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/17/2017 19:58	3675729
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 20:11	3675358
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 20:24	3675359
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 20:37	3675360
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/17/2017 20:50	3675361
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 21:03	3675362
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 21:16	3675363
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 21:29	3675364
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/17/2017 21:42	3675365
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 21:55	3675366
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/17/2017 22:08	3675367
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1649	1.141899	ug/L	102	90 - 110	---	---	1.0	---	04/17/2017 22:21	3675730
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1453	1.141899	ug/L	100	90 - 110	1.7	10	1.0	---	04/17/2017 22:34	3675731
IPC	Chromium, Hexavalent	218.6	0.02	---		1.0277	1.0	ug/L	103	90 - 110	---	---	1.0	---	04/17/2017 22:47	3675732
CCB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/17/2017 23:00	3675733
LRB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/17/2017 23:13	3675734
LFB	Chromium, Hexavalent	218.6	0.02	---		1.0185	1.0	ug/L	102	90 - 110	---	---	1.0	---	04/17/2017 23:26	3675735
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/17/2017 23:39	3675368
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/17/2017 23:52	3675369

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/18/2017 00:05	3675370
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/18/2017 00:18	3675371
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/18/2017 00:31	3675372
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	---	---	---	---	1.0	---	04/18/2017 00:44	3675373
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/18/2017 00:57	3675374
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/18/2017 01:10	3675375
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	---	---	---	---	1.0	---	04/18/2017 01:23	3675376
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.0986	1.145999	ug/L	95	90 - 110	---	---	1.0	---	04/18/2017 01:36	3675736
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.0893	1.145999	ug/L	94	90 - 110	0.9	10	1.0	---	04/18/2017 01:49	3675737
IPC	Chromium, Hexavalent	218.6	0.02	---		1.0315	1.0	ug/L	103	90 - 110	---	---	1.0	---	04/18/2017 02:02	3675738
CCB	Chromium, Hexavalent	218.6	0.02	---	<	0.02		ug/L	---	---	---	---	1.0	---	04/18/2017 02:15	3675739

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

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110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386402
Priority: Emergency Response
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3672004	Crib	218.6	04/11/17 19:00	Client	04/12/17 12:30
3672005	Crib	218.6	04/11/17 20:00	Client	04/12/17 12:30
3672006	Crib	218.6	04/11/17 21:00	Client	04/12/17 12:30
3672007	Crib	218.6	04/11/17 22:00	Client	04/12/17 12:30
3672008	Crib	218.6	04/11/17 22:00	Client	04/12/17 12:30
3672009	Crib	218.6	04/11/17 23:00	Client	04/12/17 12:30
3672010	Crib	218.6	04/12/17 00:00	Client	04/12/17 12:30
3672011	Crib	218.6	04/12/17 01:00	Client	04/12/17 12:30
3672012	Crib	218.6	04/12/17 02:00	Client	04/12/17 12:30
3672013	Crib	218.6	04/12/17 03:00	Client	04/12/17 12:30
3672014	Crib	218.6	04/12/17 04:00	Client	04/12/17 12:30
3672015	Crib	218.6	04/12/17 05:00	Client	04/12/17 12:30
3672016	Crib	218.6	04/12/17 06:00	Client	04/12/17 12:30
3672017	Crib	218.6	04/12/17 07:00	Client	04/12/17 12:30
3672018	Crib	218.6	04/12/17 08:00	Client	04/12/17 12:30

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature | Title | 04/13/2017 Date

Client Name: Environmental Monitoring Technologies
Report #: 386402

Client Name: Environmental Monitoring Technologies

Report #: 386402

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/12/17 14:03	3672004

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/12/17 14:42	3672005

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/12/17 14:55	3672006

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/12/17 15:08	3672007

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/12/17 15:21	3672008

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/12/17 15:34	3672009

Client Name: Environmental Monitoring Technologies

Report #: 386402

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/12/17 15:47	3672010

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/12/17 16:00	3672011

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/12/17 16:13	3672012

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/12/17 16:26	3672013

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/12/17 19:40	3672014

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/12/17 19:53	3672015

Client Name: Environmental Monitoring Technologies

Report #: 386402

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.16	ug/L	---	04/12/17 20:06	3672016

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.15	ug/L	---	04/12/17 20:19	3672017

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.16	ug/L	---	04/12/17 20:32	3672018

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

386402

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

317756

Due Date: ____-____-____ COC #: 21904

Company: RUSH
Address:

Phone #: (____) ____-____ Fax #: (____) ____-____
P.O. #: Proj. #: ____-____
Client Contact:
Project ID / Location:

Sample Type:
1. Waste Water 4 Sludge 7. Groundwater (filtered)
2 Drinking Water 5 Oil 8 Other
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5 HCl 8. Other
3. HNO_3 6. MeOH

Analyses: Client Provided Sample Container

EMT USE ONLY
EMT WORKORDER #

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	EMT WORKORDER #
Comb		100mL	P	1	CK	4/11/17	1900	>8				3672004
Comb		100mL	P	1	CK	4/11/17	2000					005
Comb		100mL	P	1	CK	4/11/17	2100					006
Comb		100mL	P	12	CK	4/11/17	2200					007
Comb (Dup)		100mL	P	1	CK	4/11/17	2200					008
Comb		100mL	P	1	CK	4/11/17	2300					009
Comb		100mL	P	1	AB	4/12/17	0000					010
Comb		100mL	P	1	AB	4/12/17	0100					011
Comb		100mL	P	1	AB	4/12/17	0200					012
Comb		100mL	P	1	AB	4/12/17	0300					013

RUSH

Relinquished By:	Date: 4-12-17 Time: 07:00	Received By:	Date: 4-12-17 Time: 9:00A	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: 4-12-17 Time: 12:30P	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-12-17 Time: 12:30	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

Blue 5.4°C

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21905

Company:
Address:

Phone #: (____) ____-____ Fax #: (____) ____-____
P.O. #: Proj. #: ____-____
Client Contact:
Project ID / Location:

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH

Analyses

Client Provided Sample Container

EMT USE ONLY

EMT WORKORDER #

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	EMT WORKORDER #
Crab		100mL	P	1	AB	4/12/17	0400	7.8				3672014
Crab		100mL	P	1	AB	4/12/17	0500					015
Crab		100mL	P	1	AB	4/12/17	0600					016
Crab		100mL	P	1	AB	4/12/17	0700					017
Crab		100mL	P	1	DB	4/12/17	0800					018

Relinquished By:	Date: 4-12-17 Time: [illegible]	Received By: Ted Zielinski	Date: 4-12-17 Time: 9:00A	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By: Ted Zielinski	Date: 4-12-17 Time: 12 30p	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By: KDun	Date: 4-12-17 Time: 12 :30	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

Blue 5.4°C

EMT-FORM-GEN-028

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Run Log
Run ID: **228069** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3672621		RW	DP	04/12/2017 12:58	
IPC	3672623		RW	DP	04/12/2017 13:24	
LRB	3672624		RW	DP	04/12/2017 13:37	
LFB	3672625		RW	DP	04/12/2017 13:50	
FS	3672004	Crib	SW	DP	04/12/2017 14:03	
MS	3672611	Crib	SW	DP	04/12/2017 14:16	
MSD	3672612	Crib	SW	DP	04/12/2017 14:29	
FS	3672005	Crib	SW	DP	04/12/2017 14:42	
FS	3672006	Crib	SW	DP	04/12/2017 14:55	
FS	3672007	Crib	SW	DP	04/12/2017 15:08	
FD	3672008	Crib	SW	DP	04/12/2017 15:21	
FS	3672009	Crib	SW	DP	04/12/2017 15:34	
FS	3672010	Crib	SW	DP	04/12/2017 15:47	
FS	3672011	Crib	SW	DP	04/12/2017 16:00	
FS	3672012	Crib	SW	DP	04/12/2017 16:13	
FS	3672013	Crib	SW	DP	04/12/2017 16:26	
IPC	3672626		RW	DP	04/12/2017 16:39	
CCB	3672627		RW	DP	04/12/2017 16:52	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0472	1.0	ug/L	105	90 - 110	—	—	1.0	—	04/12/2017 12:58	3672621
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9973	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/12/2017 13:24	3672623
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/12/2017 13:37	3672624
LFB	Chromium, Hexavalent	218.6	0.02	—		1.0008	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/12/2017 13:50	3672625
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	—	—	—	—	1.0	—	04/12/2017 14:03	3672004
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1496	1.1401	ug/L	101	90 - 110	—	—	1.0	—	04/12/2017 14:16	3672611
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1445	1.1401	ug/L	100	90 - 110	0.4	10	1.0	—	04/12/2017 14:29	3672612
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	—	—	—	—	1.0	—	04/12/2017 14:42	3672005
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/12/2017 14:55	3672006
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/12/2017 15:08	3672007
FD	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	1.4	10	1.0	—	04/12/2017 15:21	3672008
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	—	—	—	—	1.0	—	04/12/2017 15:34	3672009
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	—	—	—	—	1.0	—	04/12/2017 15:47	3672010
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.14		ug/L	—	—	—	—	1.0	—	04/12/2017 16:00	3672011
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/12/2017 16:13	3672012
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/12/2017 16:26	3672013
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0019	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/12/2017 16:39	3672626
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/12/2017 16:52	3672627

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Run Log

Run ID: **228087** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3672606		RW	DP	04/12/2017 18:35	
IPC	3672608		RW	DP	04/12/2017 19:01	
LRB	3672609		RW	DP	04/12/2017 19:14	
LFB	3672610		RW	DP	04/12/2017 19:27	
FS	3672014	Crib	SW	DP	04/12/2017 19:40	
FS	3672015	Crib	SW	DP	04/12/2017 19:53	
FS	3672016	Crib	SW	DP	04/12/2017 20:06	
FS	3672017	Crib	SW	DP	04/12/2017 20:19	
FS	3672018	Crib	SW	DP	04/12/2017 20:32	
IPC	3672613		RW	DP	04/12/2017 22:21	
CCB	3672614		RW	DP	04/12/2017 22:34	
CCB	3672719		RW	DP	04/13/2017 01:37	
LRB	3672720		RW	DP	04/13/2017 01:50	
LFB	3672721		RW	DP	04/13/2017 02:03	
CCB	3672725		RW	DP	04/13/2017 04:51	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0596	1.0	ug/L	106	90 - 110	—	—	1.0	—	04/12/2017 18:35	3672606
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9657	1.0	ug/L	97	90 - 110	—	—	1.0	—	04/12/2017 19:01	3672608
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/12/2017 19:14	3672609
LFB	Chromium, Hexavalent	218.6	0.02	—		0.9982	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/12/2017 19:27	3672610
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/12/2017 19:40	3672014
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/12/2017 19:53	3672015
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/12/2017 20:06	3672016
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/12/2017 20:19	3672017
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/12/2017 20:32	3672018
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0090	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/12/2017 22:21	3672613
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/12/2017 22:34	3672614
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 01:37	3672719
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 01:50	3672720
LFB	Chromium, Hexavalent	218.6	0.02	—		1.0593	1.0	ug/L	106	90 - 110	—	—	1.0	—	04/13/2017 02:03	3672721
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 04:51	3672725

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FD	Field Duplicate		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 04/14/2016

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LABORATORY CASE NARRATIVE

Client: Environmental Monitoring Technologies Report #: 386622CN

All method QC was within acceptance limits.

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[illegible]	C.S. Manager	04/14/2017
Authorized Signature	Title	Date

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110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386622
Priority: Weekend or Holiday
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3673602	Crib	218.6	04/12/17 09:00	Client	04/13/17 15:35
3673603	Crib	218.6	04/12/17 10:00	Client	04/13/17 15:35
3673604	Crib	218.6	04/12/17 12:00	Client	04/13/17 15:35
3673605	Crib	218.6	04/12/17 14:00	Client	04/13/17 15:35
3673606	Crib	218.6	04/12/17 16:00	Client	04/13/17 15:35
3673607	Crib	218.6	04/12/17 18:00	Client	04/13/17 15:35
3673608	Crib	218.6	04/12/17 20:00	Client	04/13/17 15:35
3673609	Crib	218.6	04/12/17 22:00	Client	04/13/17 15:35
3673610	Crib	218.6	04/13/17 00:00	Client	04/13/17 15:35
3673611	Crib	218.6	04/13/17 02:00	Client	04/13/17 15:35

Report Summary

Note: Sample container was provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature | Title | 04/14/2017 Date

Client Name: Environmental Monitoring Technologies
Report #: 386622

Client Name: Environmental Monitoring Technologies

Report #: 386622

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 18:07	3673602

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 18:20	3673603

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 18:33	3673604

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 18:46	3673605

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 18:59	3673606

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 19:12	3673607

Client Name: Environmental Monitoring Technologies

Report #: 386622

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 19:25	3673608

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 19:38	3673609

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 19:51	3673610

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 20:04	3673611

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	|

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

317954 ~~317848~~ SS 4-13-17

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☒ RUSH
____ day turnaround
☐ ROUTINE

386622

Due Date: ___-___-___ COC #: 21911

Company: Chicago Department of Water Management
Address: 1000 E. Ohio Street
Chicago IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: Alan Stark 312-617-4233
Project ID / Location: SWPP Crib Cr-6r Survey

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other Surface Water
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other Buffer
3. HNO_3 6. MeOH

Analyses: Hexavalent Cr-6r

EMT USE ONLY
EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Cr-6r	
Crib 3673, 602	8	100mL	P	1	DB	4-12-17	0900			8		✓	pH 8.7-9.0 SS
Crib 603	8	100mL	P	1	DB	4-12-17	1000			8		✓	
Crib 604	8	100mL	P	1	DB	4-12-17	1200			8		✓	
Crib 605	8	100mL	P	1	DB	4-12-17	1400			8		✓	
Crib 606	8	100mL	P	1	CK	4-12-17	1600			8		✓	
Crib 607	8	100mL	P	1	CK	4-12-17	1800			8		✓	
Crib 608	8	100mL	P	1	CK	4-12-17	2000			8		✓	
Crib 609	8	100mL	P	1	CK	4-12-17	2200			8		✓	
Crib 610	8	100mL	P	1	AB	4-13-17	0000			8		✓	
Crib 611	8	100mL	P	1	AB	4-13-17	0200			8		✓	

RUSH

Relinquished By:	Date: 4-13-17 Time: 11:25	Received By:	Date: 4-13-17 Time: 11:25A	EMT USE ONLY Client Code:
Relinquished By:	Date: 4-13-17 Time: 3:35P	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-13-17 Time: 15:35	Jar Lot No.

☒ SAMPLE RECEIVED ON ICE
☒ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
3.6°C

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: Drive Samples to Eurofins Lab for Analysis

EMT-FORM-GEN-028

Client Provided Sample Container

eurofins | Eaton Analytical

Eurofins Eaton Analytical
Run Log

Run ID: **228131** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3673897		RW	DP	04/13/2017 17:02	
IPC	3673899		RW	DP	04/13/2017 17:28	
LRB	3673900		RW	DP	04/13/2017 17:41	
LFB	3673901		RW	DP	04/13/2017 17:54	
FS	3673602	Crib	SW	DP	04/13/2017 18:07	
FS	3673603	Crib	SW	DP	04/13/2017 18:20	
FS	3673604	Crib	SW	DP	04/13/2017 18:33	
FS	3673605	Crib	SW	DP	04/13/2017 18:46	
FS	3673606	Crib	SW	DP	04/13/2017 18:59	
FS	3673607	Crib	SW	DP	04/13/2017 19:12	
FS	3673608	Crib	SW	DP	04/13/2017 19:25	
FS	3673609	Crib	SW	DP	04/13/2017 19:38	
FS	3673610	Crib	SW	DP	04/13/2017 19:51	
FS	3673611	Crib	SW	DP	04/13/2017 20:04	
MS	3673902	Crib	SW	DP	04/13/2017 20:17	
MSD	3673903	Crib	SW	DP	04/13/2017 20:30	
IPC	3673904		RW	DP	04/13/2017 20:43	
CCB	3673905		RW	DP	04/13/2017 20:56	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0178	1.0	ug/L	102	90 - 110	—	—	1.0	—	04/13/2017 17:02	3673897
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9659	1.0	ug/L	97	90 - 110	—	—	1.0	—	04/13/2017 17:28	3673899
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 17:41	3673900
LFB	Chromium, Hexavalent	218.6	0.02	—		0.9915	1.0	ug/L	99	90 - 110	—	—	1.0	—	04/13/2017 17:54	3673901
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 18:07	3673602
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 18:20	3673603
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 18:33	3673604
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 18:46	3673605
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 18:59	3673606
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 19:12	3673607
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 19:25	3673608
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 19:38	3673609
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 19:51	3673610
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 20:04	3673611
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1207	1.148699	ug/L	97	90 - 110	—	—	1.0	—	04/13/2017 20:17	3673902
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1215	1.148699	ug/L	97	90 - 110	0.1	10	1.0	—	04/13/2017 20:30	3673903
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9861	1.0	ug/L	99	90 - 110	—	—	1.0	—	04/13/2017 20:43	3673904
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 20:56	3673905

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 04/14/2016

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LABORATORY CASE NARRATIVE

Client: Environmental Monitoring Technologies Report #: 386504CN

All method QC was within acceptance limits.

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04/14/2017

Authorized Signature Title Date

Page 1 of 1

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110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client:	Environmental Monitoring Technologies	Report:	386504
		Priority:	Weekend or Holiday
Attn:	Eric Jensen 8100 North Austin Avenue Morton Grove, IL 60053	Status:	Final
		PWS ID:	Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3672674	1S Q#2745	218.6	04/12/17 09:54	Client	04/12/17 19:45
3672675	1SD (DIP) Q#2746	218.6	04/12/17 09:56	Client	04/12/17 19:45
3672676	2S Q#2747	218.6	04/12/17 10:28	Client	04/12/17 19:45
3672677	3S Q#2748	218.6	04/12/17 10:51	Client	04/12/17 19:45
3672678	4S Q#2749	218.6	04/12/17 11:14	Client	04/12/17 19:45
3672679	1GD Q#2750	218.6	04/12/17 11:41	Client	04/12/17 19:45
3672680	1G Q#2751	218.6	04/12/17 11:42	Client	04/12/17 19:45
3672681	2G Q#2752	218.6	04/12/17 11:56	Client	04/12/17 19:45
3672682	3G Q#2753	218.6	04/12/17 12:04	Client	04/12/17 19:45
3672683	4G Q#2754	218.6	04/12/17 12:13	Client	04/12/17 19:45
3672684	5G Q#2755	218.6	04/12/17 12:23	Client	04/12/17 19:45
3672685	6G Q#2756	218.6	04/12/17 12:35	Client	04/12/17 19:45
3672686	7G Q#2757	218.6	04/12/17 12:43	Client	04/12/17 19:45
3672687	8G Q#2758	218.6	04/12/17 12:52	Client	04/12/17 19:45
3672688	9G Q#2759	218.6	04/12/17 12:59	Client	04/12/17 19:45
3672689	10G Q#2760	218.6	04/12/17 13:07	Client	04/12/17 19:45
3672690	11G Q#2761	218.6	04/12/17 13:12	Client	04/12/17 19:45
3672691	12G Q#2762	218.6	04/12/17 13:18	Client	04/12/17 19:45
3672692	12GD Q#2763	218.6	04/12/17 13:19	Client	04/12/17 19:45

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature Title Date 04/14/2017

Client Name: Environmental Monitoring Technologies

Report #: 386504

Sampling Point: 1S Q#2745

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.18**	ug/L	---	04/12/17 22:47	3672674

Sampling Point: 1SD (DIP) Q#2746

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/12/17 23:26	3672675

Sampling Point: 2S Q#2747

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.19**	ug/L	---	04/12/17 23:39	3672676

Sampling Point: 3S Q#2748

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.18**	ug/L	---	04/12/17 23:52	3672677

Sampling Point: 4S Q#2749

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/13/17 00:06	3672678

Sampling Point: 1GD Q#2750

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**2.0**	ug/L	---	04/13/17 00:19	3672679

Client Name: Environmental Monitoring Technologies

Report #: 386504

Sampling Point: 1G Q#2751

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**1.6**	ug/L	---	04/13/17 00:32	3672680

Sampling Point: 2G Q#2752

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/13/17 00:45	3672681

Sampling Point: 3G Q#2753

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 00:58	3672682

Sampling Point: 4G Q#2754

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 01:11	3672683

Sampling Point: 5G Q#2755

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 02:16	3672684

Sampling Point: 6G Q#2756

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 02:55	3672685

Client Name: Environmental Monitoring Technologies

Report #: 386504

Sampling Point: 7G Q#2757

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 03:08	3672686

Sampling Point: 8G Q#2758

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/13/17 03:20	3672687

Sampling Point: 9G Q#2759

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.21**	ug/L	---	04/13/17 03:33	3672688

Sampling Point: 10G Q#2760

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 03:46	3672689

Sampling Point: 11G Q#2761

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 03:59	3672690

Sampling Point: 12G Q#2762

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 04:12	3672691

Client Name: Environmental Monitoring Technologies

Report #: 386504

Sampling Point: 12GD Q#2763

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/13/17 04:25	3672692

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

317848 386504

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ___-___-___ COC #: 21900

Company: Chicago Department of Water Management
Address: 1000 E Ohio St
Chicago, IL 60611

Phone #: (312) 744-7733 Fax #: (___) ___-___
P.O. #: ___ Proj. #: ___-___
Client Contact: Alan Stark (312) 617 4733
Project ID / Location: Crib Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface Water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH Buffer

Analyses: Hexavalent Chromium

EMT USE ONLY
EMT WORKORDER #

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium	EMT USE ONLY
1S Q#2745	8		P		VS	4/12/17	954		9	8		✓	3672674
1SD (DIP) Q#2746	8		P		VS	4/12/17	956		9	8		✓	675
2S Q#2747	8		P		VS	4/12/17	1028		8	8		✓	676
3S Q#2748	8		P		VS	4/12/17	1051		8	8		✓	677
4S Q#2749	8		P		VS	4/12/17	1114		8	8		✓	678
~~1G~~ 1GD Q#2750	8		P		VS	4/12/17	1141		10	8		✓	679
1G Q#2751	8		P		VS	4/12/17	1142		10	8		✓	680
2G Q#2752	8		P		VS	4/12/17	1156		10	8		✓	681
3G Q#2753	8		P		VS	4/12/17	1204		10	8		✓	682
4G Q#2754	8		P		VS	4/12/17	1213		10	8		✓	683

Relinquished By:	Date: 4-12-17 Time: 7:45	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-12-17 Time: 7:45	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

Fresh Draw

Client Provided Sample Container

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ___-___-___ COC #: 21901

Company: Chicago Department of Water Management
Address: 1000 E Ohio
Chicago, IL 60611

Phone #: (____) _____-_____ Fax #: (____) _____-_____
P.O. #: _____ Proj. #: _____-_____
Client Contact: Alan Stark 312 617 4233
Project ID / Location: Cr6 + Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag _____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH Buffer

Analyses: Hexavalent chromium

EMT USE ONLY

EMT WORKORDER #_____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent chromium	EMT WORKORDER #
5G Q#2755	8		8 P		VS	4/12/17	1223		10	8		✓	36723684
6G Q#2756	8		8 P		VS	4/12/17	1235		10	8		✓	685
7G Q#2757	8		8 P		VS	4/12/17	1243		9	8		✓	686
8G Q#2758	8		8 P		VS	4/12/17	1252		9	8		✓	687
9G Q#2759	8		8 P		VS	4/12/17	1259		9	8		✓	688
10G Q#2760	8		8 P		VS	4/12/17	1307		9	8		✓	689
11G Q#2761	8		8 P		VS	4/12/17	1312		8	8		✓	690
12G Q#2762	8		8 P		VS	4/12/17	1318		8	8		✓	691
12GD Q#2763	8		8 P		VS	4/12/17	1319		8	8		✓	692

Relinquished By:	Date: 4-12-17 Time: 7:45	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-12-17 Time: 7:45	Jar Lot No.

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: Fresh Draw

Client Provided Sample Container

EMT-FORM-GEN-028

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Run Log
Run ID: **228087** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3672606		RW	DP	04/12/2017 18:35	
LRB	3672609		RW	DP	04/12/2017 19:14	
LFB	3672610		RW	DP	04/12/2017 19:27	
IPC	3672613		RW	DP	04/12/2017 22:21	
CCB	3672614		RW	DP	04/12/2017 22:34	
FS	3672674	1S Q#2745	SW	DP	04/12/2017 22:47	
MS	3672716	1S Q#2745	SW	DP	04/12/2017 23:00	
MSD	3672717	1S Q#2745	SW	DP	04/12/2017 23:13	
FS	3672675	1SD (DIP) Q#2746	SW	DP	04/12/2017 23:26	
FS	3672676	2S Q#2747	SW	DP	04/12/2017 23:39	
FS	3672677	3S Q#2748	SW	DP	04/12/2017 23:52	
FS	3672678	4S Q#2749	SW	DP	04/13/2017 00:06	
FS	3672679	1GD Q#2750	SW	DP	04/13/2017 00:19	
FS	3672680	1G Q#2751	SW	DP	04/13/2017 00:32	
FS	3672681	2G Q#2752	SW	DP	04/13/2017 00:45	
FS	3672682	3G Q#2753	SW	DP	04/13/2017 00:58	
FS	3672683	4G Q#2754	SW	DP	04/13/2017 01:11	
IPC	3672718		RW	DP	04/13/2017 01:24	
CCB	3672719		RW	DP	04/13/2017 01:37	
LRB	3672720		RW	DP	04/13/2017 01:50	
LFB	3672721		RW	DP	04/13/2017 02:03	
FS	3672684	5G Q#2755	SW	DP	04/13/2017 02:16	
MS	3672722	5G Q#2755	SW	DP	04/13/2017 02:29	
MSD	3672723	5G Q#2755	SW	DP	04/13/2017 02:42	
FS	3672685	6G Q#2756	SW	DP	04/13/2017 02:55	
FS	3672686	7G Q#2757	SW	DP	04/13/2017 03:08	
FS	3672687	8G Q#2758	SW	DP	04/13/2017 03:20	
FS	3672688	9G Q#2759	SW	DP	04/13/2017 03:33	
FS	3672689	10G Q#2760	SW	DP	04/13/2017 03:46	
FS	3672690	11G Q#2761	SW	DP	04/13/2017 03:59	
FS	3672691	12G Q#2762	SW	DP	04/13/2017 04:12	
FS	3672692	12GD Q#2763	SW	DP	04/13/2017 04:25	
IPC	3672724		RW	DP	04/13/2017 04:38	

CCB	3672725	RW	DP	04/13/2017 04:51

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0596	1.0	ug/L	106	90 - 110	—	—	1.0	—	04/12/2017 18:35	3672606
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/12/2017 19:14	3672609
LFB	Chromium, Hexavalent	218.6	0.02	—		0.9982	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/12/2017 19:27	3672610
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0090	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/12/2017 22:21	3672613
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/12/2017 22:34	3672614
FS	Chromium, Hexavalent	218.6	0.02	1S Q#2745		0.18		ug/L	—	—	—	—	1.0	—	04/12/2017 22:47	3672674
MS	Chromium, Hexavalent	218.6	0.02	1S Q#2745		1.1716	1.179799	ug/L	99	90 - 110	—	—	1.0	—	04/12/2017 23:00	3672716
MSD	Chromium, Hexavalent	218.6	0.02	1S Q#2745		1.1681	1.179799	ug/L	99	90 - 110	0.3	10	1.0	—	04/12/2017 23:13	3672717
FS	Chromium, Hexavalent	218.6	0.02	1SD (DIP) Q#2746		0.15		ug/L	—	—	—	—	1.0	—	04/12/2017 23:26	3672675
FS	Chromium, Hexavalent	218.6	0.02	2S Q#2747		0.19		ug/L	—	—	—	—	1.0	—	04/12/2017 23:39	3672676
FS	Chromium, Hexavalent	218.6	0.02	3S Q#2748		0.18		ug/L	—	—	—	—	1.0	—	04/12/2017 23:52	3672677
FS	Chromium, Hexavalent	218.6	0.02	4S Q#2749		0.17		ug/L	—	—	—	—	1.0	—	04/13/2017 00:06	3672678
FS	Chromium, Hexavalent	218.6	0.02	1GD Q#2750		2.0		ug/L	—	—	—	—	1.0	—	04/13/2017 00:19	3672679
FS	Chromium, Hexavalent	218.6	0.02	1G Q#2751		1.6		ug/L	—	—	—	—	1.0	—	04/13/2017 00:32	3672680
FS	Chromium, Hexavalent	218.6	0.02	2G Q#2752		0.17		ug/L	—	—	—	—	1.0	—	04/13/2017 00:45	3672681
FS	Chromium, Hexavalent	218.6	0.02	3G Q#2753		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 00:58	3672682
FS	Chromium, Hexavalent	218.6	0.02	4G Q#2754		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 01:11	3672683
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0572	1.0	ug/L	106	90 - 110	—	—	1.0	—	04/13/2017 01:24	3672718
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 01:37	3672719
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 01:50	3672720
LFB	Chromium, Hexavalent	218.6	0.02	—		1.0593	1.0	ug/L	106	90 - 110	—	—	1.0	—	04/13/2017 02:03	3672721
FS	Chromium, Hexavalent	218.6	0.02	5G Q#2755		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 02:16	3672684
MS	Chromium, Hexavalent	218.6	0.02	5G Q#2755		1.1900	1.1607	ug/L	103	90 - 110	—	—	1.0	—	04/13/2017 02:29	3672722
MSD	Chromium, Hexavalent	218.6	0.02	5G Q#2755		1.1882	1.1607	ug/L	103	90 - 110	0.2	10	1.0	—	04/13/2017 02:42	3672723
FS	Chromium, Hexavalent	218.6	0.02	6G Q#2756		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 02:55	3672685
FS	Chromium, Hexavalent	218.6	0.02	7G Q#2757		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 03:08	3672686
FS	Chromium, Hexavalent	218.6	0.02	8G Q#2758		0.15		ug/L	—	—	—	—	1.0	—	04/13/2017 03:20	3672687
FS	Chromium, Hexavalent	218.6	0.02	9G Q#2759		0.21		ug/L	—	—	—	—	1.0	—	04/13/2017 03:33	3672688
FS	Chromium, Hexavalent	218.6	0.02	10G Q#2760		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 03:46	3672689
FS	Chromium, Hexavalent	218.6	0.02	11G Q#2761		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 03:59	3672690
FS	Chromium, Hexavalent	218.6	0.02	12G Q#2762		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 04:12	3672691
FS	Chromium, Hexavalent	218.6	0.02	12GD Q#2763		0.16		ug/L	—	—	—	—	1.0	—	04/13/2017 04:25	3672692
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0518	1.0	ug/L	105	90 - 110	—	—	1.0	—	04/13/2017 04:38	3672724
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 04:51	3672725

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
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Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
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Minnesota*	018-999-338	Wisconsin	999766900
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Missouri	880		

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Revision date: 04/14/2016

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South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386740
Priority: Weekend or Holiday
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3674524	Crib	218.6	04/13/17 04:00	Client	04/14/17 12:50
3674525	Crib	218.6	04/13/17 06:00	Client	04/14/17 12:50
3674526	Crib	218.6	04/13/17 08:00	Client	04/14/17 12:50
3674527	Crib	218.6	04/13/17 10:00	Client	04/14/17 12:50
3674528	Crib	218.6	04/13/17 12:00	Client	04/14/17 12:50
3674529	Crib	218.6	04/13/17 14:00	Client	04/14/17 12:50
3674530	Crib	218.6	04/13/17 16:00	Client	04/14/17 12:50
3674531	Crib	218.6	04/13/17 18:00	Client	04/14/17 12:50
3674532	Crib	218.6	04/13/17 20:00	Client	04/14/17 12:50
3674533	Crib	218.6	04/13/17 22:00	Client	04/14/17 12:50
3674534	Crib	218.6	04/14/17 00:00	Client	04/14/17 12:50
3674535	Crib	218.6	04/14/17 02:00	Client	04/14/17 12:50
3674536	Crib	218.6	04/14/17 04:00	Client	04/14/17 12:50
3674537	Crib	218.6	04/14/17 06:00	Client	04/14/17 12:50
3674538	Crib	218.6	04/14/17 08:00	Client	04/14/17 12:50

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature | Title | 04/17/2017 Date

Client Name: Environmental Monitoring Technologies
Report #: 386740

Client Name: Environmental Monitoring Technologies

Report #: 386740

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 18:34	3674524

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 18:47	3674525

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 19:00	3674526

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 19:13	3674527

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 19:26	3674528

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 19:39	3674529

Client Name: Environmental Monitoring Technologies

Report #: 386740

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 19:52	3674530

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 20:05	3674531

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 20:18	3674532

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 20:31	3674533

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 21:36	3674534

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 21:49	3674535

Client Name: Environmental Monitoring Technologies

Report #: 386740

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 22:02	3674536

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 22:15	3674537

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 22:28	3674538

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

RUSH

Chain of Custody Record

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Morton Grove, Illinois 60053-3203

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TURNAROUND TIME:
☑ RUSH
____ day turnaround
☐ ROUTINE

318024
386740

Due Date: ___-___-___ COC #: 21906

Company: CHICAGO DEPARTMENT OF WATER
Address: 1000 E OHIO STREET
CHICAGO IL 60611

Phone #: (312) 744 - 7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____
Client Contact: ALAN STARK 312-617-4233
Project ID / Location: SWPP CRIB CR 6+ SUPPLY

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other Surface water
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other BUFFER
3. HNO_3 6. MeOH

Analyses

Client Provided Sample Container

EMT USE ONLY

EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Cr
Crib 3674524	8	100mL	P	1	AB	4-13-17	0400	pH=9		8		✓
Crib 525	8	100mL	P	1	AB	4-13-17	0600			8		✓
Crib 526	8	100mL	P	1	CK	4-13-17	0800			8		✓
Crib 527	8	100mL	P	1	CK	4-13-17	1000			8		✓
Crib 528	8	100mL	P	1	CK	4-13-17	1200			8		✓
Crib 529	8	100mL	P	1	CK	4-13-17	1400			8		✓
Crib 530	8	100mL	P	1	LS	4-13-17	1600			8		✓
Crib 531	8	100mL	P	1	LS	4-13-17	1800			8		✓
Crib 532	8	100mL	P	1	LS	4-13-17	2000			8		✓
Crib 533	8	100mL	P	1	LS	4-13-17	2200			8		✓

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY
Chris Humphrey	4-14-17 Time: 9:00A	Ted Zielinski	4-14-17 Time: 9:00A	Client Code:
Relinquished By: Ted Zielinski	Date: 4-14-17 Time: 12:45P	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: KDW	Date: 4-14-17 Time: ~~12:45~~ 12:50 4-14-2017	Jar Lot No. KD

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: DRIVE SAMPLES TO EUROFINS LAB FOR ANALYSIS

Blue 5.4°C

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☑ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21907

Company: CHICAGO DEPARTMENT OF WATER
Address: 1000 E OHIO STREET
CHICAGO IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: ALAN STARK 312-617-4233
Project ID / Location: SWDP CRIB Cr 6+ SURVEY

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH BUFFER

Analyses: Hexavalent Cr 6+ | Client Provided Sample Container

EMT USE ONLY

EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab
Crib 3674534	8	100mL	P	1	DB	4-14-17	0000	pH=9		8	
Crib 535	8	100mL	P	1	DB	4-14-17	0200			8	
Crib 536	8	100mL	P	1	DB	4-14-17	0400			8	
Crib 537	8	100mL	P	1	DB	4-14-17	0600			8	
Crib 538	8	100mL	P	1	CK	4-14-17	0800			8	

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY
[signature]	4-14-17 Time: 9:00A	[signature]	4-14-17 Time: 9:00A	Client Code:
Relinquished By: [signature]	Date: 4-14-17 Time: 12:50P	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: KDuw	Date: 4-14-17 Time: 12:50	Jar Lot No.

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: Drive Samples to Eurofins Lab for Analysis

Blue 5.4°C

EMT-FORM-GEN-028

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Eurofins Eaton Analytical
Run Log
Run ID: **228162** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3674841		RW	DP	04/14/2017 17:29	
IPC	3674843		RW	DP	04/14/2017 17:55	
LRB	3674844		RW	DP	04/14/2017 18:08	
LFB	3674845		RW	DP	04/14/2017 18:21	
FS	3674524	Crib	SW	DP	04/14/2017 18:34	
FS	3674525	Crib	SW	DP	04/14/2017 18:47	
FS	3674526	Crib	SW	DP	04/14/2017 19:00	
FS	3674527	Crib	SW	DP	04/14/2017 19:13	
FS	3674528	Crib	SW	DP	04/14/2017 19:26	
FS	3674529	Crib	SW	DP	04/14/2017 19:39	
FS	3674530	Crib	SW	DP	04/14/2017 19:52	
FS	3674531	Crib	SW	DP	04/14/2017 20:05	
FS	3674532	Crib	SW	DP	04/14/2017 20:18	
FS	3674533	Crib	SW	DP	04/14/2017 20:31	
MS	3674846	Crib	SW	DP	04/14/2017 20:44	
MSD	3674847	Crib	SW	DP	04/14/2017 20:57	
IPC	3674848		RW	DP	04/14/2017 21:10	
CCB	3674849		RW	DP	04/14/2017 21:23	
FS	3674534	Crib	SW	DP	04/14/2017 21:36	
FS	3674535	Crib	SW	DP	04/14/2017 21:49	
FS	3674536	Crib	SW	DP	04/14/2017 22:02	
FS	3674537	Crib	SW	DP	04/14/2017 22:15	
FS	3674538	Crib	SW	DP	04/14/2017 22:28	
MS	3674850	Crib	SW	DP	04/14/2017 22:41	
MSD	3674851	Crib	SW	DP	04/14/2017 23:01	
IPC	3674852		RW	DP	04/15/2017 00:18	
CCB	3674853		RW	DP	04/15/2017 00:31	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0192	1.0	ug/L	102	90 - 110	—	—	1.0	—	04/14/2017 17:29	3674841
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0001	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/14/2017 17:55	3674843
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 18:08	3674844
LFB	Chromium, Hexavalent	218.6	0.02	—		1.0078	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/14/2017 18:21	3674845
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 18:34	3674524
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 18:47	3674525
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 19:00	3674526
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 19:13	3674527
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 19:26	3674528
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 19:39	3674529
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 19:52	3674530
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 20:05	3674531
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 20:18	3674532
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 20:31	3674533
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1246	1.1511	ug/L	97	90 - 110	—	—	1.0	—	04/14/2017 20:44	3674846
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1213	1.1511	ug/L	97	90 - 110	0.3	10	1.0	—	04/14/2017 20:57	3674847
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0084	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/14/2017 21:10	3674848
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 21:23	3674849
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 21:36	3674534
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 21:49	3674535
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 22:02	3674536
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 22:15	3674537
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 22:28	3674538
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1504	1.151999	ug/L	100	90 - 110	—	—	1.0	—	04/14/2017 22:41	3674850
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1439	1.151999	ug/L	99	90 - 110	0.6	10	1.0	—	04/14/2017 23:01	3674851
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0167	1.0	ug/L	102	90 - 110	—	—	1.0	—	04/15/2017 00:18	3674852
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/15/2017 00:31	3674853

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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Arizona	AZ0432	Nevada	IN00035
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Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
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Revision date: 04/14/2016

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110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386663
Priority: Weekend or Holiday
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3673906	1S Q2785	218.6	04/13/17 12:38	Client	04/13/17 22:40
3673907	1SD Q2786	218.6	04/13/17 12:41	Client	04/13/17 22:40
3673908	2S Q2787	218.6	04/13/17 13:11	Client	04/13/17 22:40
3673909	3S Q2788	218.6	04/13/17 13:44	Client	04/13/17 22:40
3673910	4S Q2789	218.6	04/13/17 13:57	Client	04/13/17 22:40
3673911	4G Q2790	218.6	04/13/17 14:13	Client	04/13/17 22:40
3673912	3G Q2791	218.6	04/13/17 14:22	Client	04/13/17 22:40
3673913	2G Q2792	218.6	04/13/17 14:30	Client	04/13/17 22:40
3673914	1G Q2793	218.6	04/13/17 14:39	Client	04/13/17 22:40
3673915	1GD Q2794	218.6	04/13/17 14:40	Client	04/13/17 22:40
3673916	13GE Q2795	218.6	04/13/17 14:52	Client	04/13/17 22:40
3673917	14GE Q2796	218.6	04/13/17 15:05	Client	04/13/17 22:40
3673918	14GED Q2797	218.6	04/13/17 15:06	Client	04/13/17 22:40
3673919	15GE Q2798	218.6	04/13/17 15:11	Client	04/13/17 22:40
3673920	16GE Q2799	218.6	04/13/17 15:21	Client	04/13/17 22:40
3673921	8G Q2800	218.6	04/13/17 15:29	Client	04/13/17 22:40
3673922	7G Q2801	218.6	04/13/17 15:36	Client	04/13/17 22:40
3673923	6G Q2802	218.6	04/13/17 15:44	Client	04/13/17 22:40
3673924	5G Q2803	218.6	04/13/17 15:52	Client	04/13/17 22:40
3673925	12G Q2804	218.6	04/13/17 15:58	Client	04/13/17 22:40
3673926	12GD Q2805	218.6	04/13/17 15:59	Client	04/13/17 22:40
3673927	11G Q2806	218.6	04/13/17 16:09	Client	04/13/17 22:40
3673928	10G Q2807	218.6	04/13/17 16:17	Client	04/13/17 22:40
3673929	9G Q2808	218.6	04/13/17 16:25	Client	04/13/17 22:40
3673930	17GE Q2809	218.6	04/13/17 16:33	Client	04/13/17 22:40
3673931	18GE Q2810	218.6	04/13/17 16:42	Client	04/13/17 22:40
3673932	18GED Q2811	218.6	04/13/17 16:44	Client	04/13/17 22:40

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature Title 04/17/2017 Date

Client Name: Environmental Monitoring Technologies
Report #: 386663

Client Name: Environmental Monitoring Technologies

Report #: 386663

Sampling Point: 1S Q2785

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 00:01	3673906

Sampling Point: 1SD Q2786

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.14**	ug/L	---	04/14/17 00:14	3673907

Sampling Point: 2S Q2787

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.18**	ug/L	---	04/14/17 00:27	3673908

Sampling Point: 3S Q2788

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/14/17 00:40	3673909

Sampling Point: 4S Q2789

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/14/17 00:53	3673910

Sampling Point: 4G Q2790

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.22**	ug/L	---	04/14/17 01:06	3673911

Client Name: Environmental Monitoring Technologies

Report #: 386663

Sampling Point: 3G Q2791

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.52**	ug/L	---	04/14/17 01:19	3673912

Sampling Point: 2G Q2792

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.56**	ug/L	---	04/14/17 01:32	3673913

Sampling Point: 1G Q2793

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.60**	ug/L	---	04/14/17 01:45	3673914

Sampling Point: 1GD Q2794

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.62**	ug/L	---	04/14/17 01:58	3673915

Sampling Point: 13GE Q2795

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.64**	ug/L	---	04/14/17 03:03	3673916

Sampling Point: 14GE Q2796

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/14/17 03:16	3673917

Client Name: Environmental Monitoring Technologies

Report #: 386663

Sampling Point: 14GED Q2797

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.18	ug/L	---	04/14/17 03:29	3673918

Sampling Point: 15GE Q2798

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.19	ug/L	---	04/14/17 03:42	3673919

Sampling Point: 16GE Q2799

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.26	ug/L	---	04/14/17 03:55	3673920

Sampling Point: 8G Q2800

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.69	ug/L	---	04/14/17 04:08	3673921

Sampling Point: 7G Q2801

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.56	ug/L	---	04/14/17 04:21	3673922

Sampling Point: 6G Q2802

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.49	ug/L	---	04/14/17 04:34	3673923

Client Name: Environmental Monitoring Technologies

Report #: 386663

Sampling Point: 5G Q2803

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.42	ug/L	---	04/14/17 04:47	3673924

Sampling Point: 12G Q2804

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.22	ug/L	---	04/14/17 05:00	3673925

Sampling Point: 12GD Q2805

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.26	ug/L	---	04/14/17 05:31	3673926

Sampling Point: 11G Q2806

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.50	ug/L	---	04/14/17 06:44	3673927

Sampling Point: 10G Q2807

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.45	ug/L	---	04/14/17 06:57	3673928

Sampling Point: 9G Q2808

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.43	ug/L	---	04/14/17 07:10	3673929

Client Name: Environmental Monitoring Technologies

Report #: 386663

Sampling Point: 17GE Q2809

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.27**	ug/L	---	04/14/17 07:23	3673930

Sampling Point: 18GE Q2810

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.18**	ug/L	---	04/14/17 07:36	3673931

Sampling Point: 18GED Q2811

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.17**	ug/L	---	04/14/17 07:49	3673932

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	|

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

317965

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21915

Company: Chicago Department of Water Management
Address: 1000 E Ohio St
Chicago, IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: _____ Proj. #: _____
Client Contact: Alan Stack (312) 617-4233
Project ID / Location: CR Cut Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other Buffer
3. HNO_3 6. MeOH

Analyses: Hexavalent Chromium

EMT USE ONLY

EMT WORKORDER #

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium						EMT USE ONLY
IS Q2785	8		P		VS	4-13-17	1238		10	8		✓						36739 06
ISD Q2786	8		P		VS	4-13-17	1241		10	8		✓						907
2S Q2787	8		P		VS	4-13-17	1311		8	8		✓						908
3S Q2788	8		P		VS	4-13-17	1314		8	8		✓						909
4S Q2789	8		P		VS	4-13-17	1357		8	8		✓						910
4G Q2790	8		P		VS	4-13-17	1413		9	8		✓						911
3G Q2791	8		P		VS	4-13-17	1422		9	8		✓						912
2G Q2792	8		P		VS	4-13-17	1430		9	8		✓						913
1G Q2793	8		P		VS	4-13-17	1439		9	8		✓						914
1GD Q2794	8		P		VS	4-13-17	1440		9	8		✓						915

Relinquished By:	Date: 4-13-17 Time: 10:40	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-13-17 Time: 10:40	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

Client Provided Sample Container

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21929

Company: Chicago Department of Water Management
Address: 1000 E Ohio St
Chicago, IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: Alan Stark (312) 617-4233
Project ID / Location: CC Gt Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other Surface water
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other Buffer
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH

Analyses: Hexavalent Chromium

EMT USE ONLY

EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium									
13GE Q2795	8		P		VS	4-13-17	1452		10	8		✓							367	3916	
14GE Q2796	8		P		VS	4-13-17	1505		9	8		✓								917	
14GED Q2797	8		P		VS	4-13-17	1506		9	8		✓								918	
15GE Q2798	8		P		VS	4-13-17	1511		9	8		✓								919	
16GE Q2799	8		P		VS	4-13-17	1521		9	8		✓								920	
8G Q2800	8		P		VS	4-13-17	1529		9	8		✓								921	
7G Q2801	8		P		VS	4-13-17	1536		9	8		✓								922	
6G Q2802	8		P		VS	4-13-17	1544		9	8		✓								923	
5G Q2803	8		P		VS	4-13-17	1552		9	8		✓								924	
12G Q2804	8		P		VS	4-13-17	1558		9	8		✓								925	

Relinquished By:	Date: 4-13-17 Time: 10:40	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-13-17 Time: 10:40 pm	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

Client Provided Sample Container

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21928

Company: Chicago Department of Water Management
Address: 1000 E Ohio St
Chicago, IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: Alan Stark (312) 617-4233
Project ID / Location: Cr Gt Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other Surface Water
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other Buffer
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium									EMT USE ONLY / EMT WORKORDER #
12GD Q2805	8		P		VS	4-13-17	1559		9	8		✓						3673926			
11G Q2806	8		P		VS	4-13-17	1609		9	8		✓								927	
10G Q2807	8		P		VS	4-13-17	1617		9	8		✓								928	
9G Q2808	8		P		VS	4-13-17	1625		9	8		✓								929	
17GE Q2809	8		P		VS	4-13-17	1633		9	8		✓								930	
18GE Q2810	8		P		VS	4-13-17	1642		9	8		✓								931	
18GED Q2811	8		P		VS	4-13-17	1644		9	8		✓								932	
												✓									
												✓									

Relinquished By:	Date: 4-13-17 Time: 10:40	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-13-17 Time: 10:40 am	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

Client Provided Sample Container

EMT-FORM-GEN-028

eurofins | Eaton Analytical

Eurofins Eaton Analytical
Run Log

Run ID: **228136** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3673786		RW	DP	04/13/2017 22:56	
IPC	3673788		RW	DP	04/13/2017 23:22	
LRB	3673789		RW	DP	04/13/2017 23:35	
LFB	3673790		RW	DP	04/13/2017 23:48	
FS	3673906	1S Q2785	SW	DP	04/14/2017 00:01	
FS	3673907	1SD Q2786	SW	DP	04/14/2017 00:14	
FS	3673908	2S Q2787	SW	DP	04/14/2017 00:27	
FS	3673909	3S Q2788	SW	DP	04/14/2017 00:40	
FS	3673910	4S Q2789	SW	DP	04/14/2017 00:53	
FS	3673911	4G Q2790	SW	DP	04/14/2017 01:06	
FS	3673912	3G Q2791	SW	DP	04/14/2017 01:19	
FS	3673913	2G Q2792	SW	DP	04/14/2017 01:32	
FS	3673914	1G Q2793	SW	DP	04/14/2017 01:45	
FS	3673915	1GD Q2794	SW	DP	04/14/2017 01:58	
MS	3673958	1GD Q2794	SW	DP	04/14/2017 02:11	
MSD	3673959	1GD Q2794	SW	DP	04/14/2017 02:24	
IPC	3673791		RW	DP	04/14/2017 02:37	
CCB	3673792		RW	DP	04/14/2017 02:50	
FS	3673916	13GE Q2795	SW	DP	04/14/2017 03:03	
FS	3673917	14GE Q2796	SW	DP	04/14/2017 03:16	
FS	3673918	14GED Q2797	SW	DP	04/14/2017 03:29	
FS	3673919	15GE Q2798	SW	DP	04/14/2017 03:42	
FS	3673920	16GE Q2799	SW	DP	04/14/2017 03:55	
FS	3673921	8G Q2800	SW	DP	04/14/2017 04:08	
FS	3673922	7G Q2801	SW	DP	04/14/2017 04:21	
FS	3673923	6G Q2802	SW	DP	04/14/2017 04:34	
FS	3673924	5G Q2803	SW	DP	04/14/2017 04:47	
FS	3673925	12G Q2804	SW	DP	04/14/2017 05:00	
MS	3673960	12G Q2804	SW	DP	04/14/2017 05:13	
MSD	3673961	12G Q2804	SW	DP	04/14/2017 05:26	
IPC	3673962		RW	DP	04/14/2017 05:39	
CCB	3673963		RW	DP	04/14/2017 05:52	
LRB	3673964		RW	DP	04/14/2017 06:05	

LFB	3673965		RW	DP	04/14/2017 06:18
FS	3673926	12GD Q2805	SW	DP	04/14/2017 06:31
FS	3673927	11G Q2806	SW	DP	04/14/2017 06:44
FS	3673928	10G Q2807	SW	DP	04/14/2017 06:57
FS	3673929	9G Q2808	SW	DP	04/14/2017 07:10
FS	3673930	17GE Q2809	SW	DP	04/14/2017 07:23
FS	3673931	18GE Q2810	SW	DP	04/14/2017 07:36
FS	3673932	18GED Q2811	SW	DP	04/14/2017 07:49
MS	3673966	18GED Q2811	SW	DP	04/14/2017 08:02
MSD	3673967	18GED Q2811	SW	DP	04/14/2017 08:15
IPC	3673968		RW	DP	04/14/2017 08:28
CCB	3673969		RW	DP	04/14/2017 08:41

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0246	1.0	ug/L	102	90 - 110	—	—	1.0	—	04/13/2017 22:56	3673786
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9876	1.0	ug/L	99	90 - 110	—	—	1.0	—	04/13/2017 23:22	3673788
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/13/2017 23:35	3673789
LFB	Chromium, Hexavalent	218.6	0.02	—		0.9938	1.0	ug/L	99	90 - 110	—	—	1.0	—	04/13/2017 23:48	3673790
FS	Chromium, Hexavalent	218.6	0.02	1S Q2785		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 00:01	3673906
FS	Chromium, Hexavalent	218.6	0.02	1SD Q2786		0.14		ug/L	—	—	—	—	1.0	—	04/14/2017 00:14	3673907
FS	Chromium, Hexavalent	218.6	0.02	2S Q2787		0.18		ug/L	—	—	—	—	1.0	—	04/14/2017 00:27	3673908
FS	Chromium, Hexavalent	218.6	0.02	3S Q2788		0.17		ug/L	—	—	—	—	1.0	—	04/14/2017 00:40	3673909
FS	Chromium, Hexavalent	218.6	0.02	4S Q2789		0.17		ug/L	—	—	—	—	1.0	—	04/14/2017 00:53	3673910
FS	Chromium, Hexavalent	218.6	0.02	4G Q2790		0.22		ug/L	—	—	—	—	1.0	—	04/14/2017 01:06	3673911
FS	Chromium, Hexavalent	218.6	0.02	3G Q2791		0.52		ug/L	—	—	—	—	1.0	—	04/14/2017 01:19	3673912
FS	Chromium, Hexavalent	218.6	0.02	2G Q2792		0.56		ug/L	—	—	—	—	1.0	—	04/14/2017 01:32	3673913
FS	Chromium, Hexavalent	218.6	0.02	1G Q2793		0.60		ug/L	—	—	—	—	1.0	—	04/14/2017 01:45	3673914
FS	Chromium, Hexavalent	218.6	0.02	1GD Q2794		0.62		ug/L	—	—	—	—	1.0	—	04/14/2017 01:58	3673915
MS	Chromium, Hexavalent	218.6	0.02	1GD Q2794		1.5951	1.623299	ug/L	97	90 - 110	—	—	1.0	—	04/14/2017 02:11	3673958
MSD	Chromium, Hexavalent	218.6	0.02	1GD Q2794		1.5981	1.623299	ug/L	97	90 - 110	0.2	10	1.0	—	04/14/2017 02:24	3673959
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9884	1.0	ug/L	99	90 - 110	—	—	1.0	—	04/14/2017 02:37	3673791
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 02:50	3673792
FS	Chromium, Hexavalent	218.6	0.02	13GE Q2795		0.64		ug/L	—	—	—	—	1.0	—	04/14/2017 03:03	3673916
FS	Chromium, Hexavalent	218.6	0.02	14GE Q2796		0.17		ug/L	—	—	—	—	1.0	—	04/14/2017 03:16	3673917
FS	Chromium, Hexavalent	218.6	0.02	14GED Q2797		0.18		ug/L	—	—	—	—	1.0	—	04/14/2017 03:29	3673918
FS	Chromium, Hexavalent	218.6	0.02	15GE Q2798		0.19		ug/L	—	—	—	—	1.0	—	04/14/2017 03:42	3673919
FS	Chromium, Hexavalent	218.6	0.02	16GE Q2799		0.26		ug/L	—	—	—	—	1.0	—	04/14/2017 03:55	3673920
FS	Chromium, Hexavalent	218.6	0.02	8G Q2800		0.69		ug/L	—	—	—	—	1.0	—	04/14/2017 04:08	3673921
FS	Chromium, Hexavalent	218.6	0.02	7G Q2801		0.56		ug/L	—	—	—	—	1.0	—	04/14/2017 04:21	3673922
FS	Chromium, Hexavalent	218.6	0.02	6G Q2802		0.49		ug/L	—	—	—	—	1.0	—	04/14/2017 04:34	3673923
FS	Chromium, Hexavalent	218.6	0.02	5G Q2803		0.42		ug/L	—	—	—	—	1.0	—	04/14/2017 04:47	3673924
FS	Chromium, Hexavalent	218.6	0.02	12G Q2804		0.22		ug/L	—	—	—	—	1.0	—	04/14/2017 05:00	3673925
MS	Chromium, Hexavalent	218.6	0.02	12G Q2804		1.2200	1.2156	ug/L	100	90 - 110	—	—	1.0	—	04/14/2017 05:13	3673960
MSD	Chromium, Hexavalent	218.6	0.02	12G Q2804		1.2125	1.2156	ug/L	100	90 - 110	0.6	10	1.0	—	04/14/2017 05:26	3673961
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9940	1.0	ug/L	99	90 - 110	—	—	1.0	—	04/14/2017 05:39	3673962
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 05:52	3673963
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 06:05	3673964
LFB	Chromium, Hexavalent	218.6	0.02	—		0.9890	1.0	ug/L	99	90 - 110	—	—	1.0	—	04/14/2017 06:18	3673965
FS	Chromium, Hexavalent	218.6	0.02	12GD Q2805		0.26		ug/L	—	—	—	—	1.0	—	04/14/2017 06:31	3673926
FS	Chromium, Hexavalent	218.6	0.02	11G Q2806		0.50		ug/L	—	—	—	—	1.0	—	04/14/2017 06:44	3673927

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FS	Chromium, Hexavalent	218.6	0.02	10G Q2807		0.45		ug/L	—	—	—	—	1.0	—	04/14/2017 06:57	3673928
FS	Chromium, Hexavalent	218.6	0.02	9G Q2808		0.43		ug/L	—	—	—	—	1.0	—	04/14/2017 07:10	3673929
FS	Chromium, Hexavalent	218.6	0.02	17GE Q2809		0.27		ug/L	—	—	—	—	1.0	—	04/14/2017 07:23	3673930
FS	Chromium, Hexavalent	218.6	0.02	18GE Q2810		0.18		ug/L	—	—	—	—	1.0	—	04/14/2017 07:36	3673931
FS	Chromium, Hexavalent	218.6	0.02	18GED Q2811		0.17		ug/L	—	—	—	—	1.0	—	04/14/2017 07:49	3673932
MS	Chromium, Hexavalent	218.6	0.02	18GED Q2811		1.1881	1.1746	ug/L	101	90 - 110	—	—	1.0	—	04/14/2017 08:02	3673966
MSD	Chromium, Hexavalent	218.6	0.02	18GED Q2811		1.1975	1.1746	ug/L	102	90 - 110	0.8	10	1.0	—	04/14/2017 08:15	3673967
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9871	1.0	ug/L	99	90 - 110	—	—	1.0	—	04/14/2017 08:28	3673968
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 08:41	3673969

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 04/14/2016

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386740
Priority: Weekend or Holiday
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3674524	Crib	218.6	04/13/17 04:00	Client	04/14/17 12:50
3674525	Crib	218.6	04/13/17 06:00	Client	04/14/17 12:50
3674526	Crib	218.6	04/13/17 08:00	Client	04/14/17 12:50
3674527	Crib	218.6	04/13/17 10:00	Client	04/14/17 12:50
3674528	Crib	218.6	04/13/17 12:00	Client	04/14/17 12:50
3674529	Crib	218.6	04/13/17 14:00	Client	04/14/17 12:50
3674530	Crib	218.6	04/13/17 16:00	Client	04/14/17 12:50
3674531	Crib	218.6	04/13/17 18:00	Client	04/14/17 12:50
3674532	Crib	218.6	04/13/17 20:00	Client	04/14/17 12:50
3674533	Crib	218.6	04/13/17 22:00	Client	04/14/17 12:50
3674534	Crib	218.6	04/14/17 00:00	Client	04/14/17 12:50
3674535	Crib	218.6	04/14/17 02:00	Client	04/14/17 12:50
3674536	Crib	218.6	04/14/17 04:00	Client	04/14/17 12:50
3674537	Crib	218.6	04/14/17 06:00	Client	04/14/17 12:50
3674538	Crib	218.6	04/14/17 08:00	Client	04/14/17 12:50

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature | Title | 04/17/2017 Date

Client Name: Environmental Monitoring Technologies
Report #: 386740

Client Name: Environmental Monitoring Technologies

Report #: 386740

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 18:34	3674524

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 18:47	3674525

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 19:00	3674526

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 19:13	3674527

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 19:26	3674528

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 19:39	3674529

Client Name: Environmental Monitoring Technologies

Report #: 386740

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 19:52	3674530

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 20:05	3674531

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 20:18	3674532

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 20:31	3674533

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 21:36	3674534

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 21:49	3674535

Client Name: Environmental Monitoring Technologies

Report #: 386740

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 22:02	3674536

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 22:15	3674537

Sampling Point: Crib

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 22:28	3674538

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

RUSH

Chain of Custody Record

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

318024
386740

TURNAROUND TIME:
☑ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21906

Company: CHICAGO DEPARTMENT OF WATER
Address: 1000 E OHIO STREET
CHICAGO IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: ALAN STARK 312-617-4233
Project ID / Location: SLOPP CRIB Cr 6+ SURVEY

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other Surface water
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other BUFFER
3. HNO_3 6. MeOH

Analyses

Client Provided Sample Container

EMT USE ONLY

EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Cr
Crib 3674524	8	100mL	P	1	AB	4-13-17	0400	pH=9		8		✓
Crib 525	8	100mL	P	1	AB	4-13-17	0600			8		✓
Crib 526	8	100mL	P	1	CK	4-13-17	0800			8		✓
Crib 527	8	100mL	P	1	CK	4-13-17	1000			8		✓
Crib 528	8	100mL	P	1	CK	4-13-17	1200			8		✓
Crib 529	8	100mL	P	1	CK	4-13-17	1400			8		✓
Crib 530	8	100mL	P	1	LS	4-13-17	1600			8		✓
Crib 531	8	100mL	P	1	LS	4-13-17	1800			8		✓
Crib 532	8	100mL	P	1	LS	4-13-17	2000			8		✓
Crib 533	8	100mL	P	1	LS	4-13-17	2200			8		✓

Relinquished By:	Date/Time	Received By:	Date/Time	EMT USE ONLY
Chris Kwiatkowski	Date: 4-14-17 Time: 9:00A	Ted Zielinski	Date: 4-14-17 Time: 9:00A	Client Code:
Ted Zielinski	Date: 4-14-17 Time: 12:45P	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: KDm	Date: 4-14-17 Time: ~~12:45~~ 12:50 4-14-2017	Jar Lot No. KD

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: DRIVE SAMPLES TO EUROFINS LAB FOR ANALYSIS

Blue 54°C

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☑ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21907

Company: CHICAGO DEPARTMENT OF WATER
Address: 1000 E OHIO STREET
CHICAGO IL 60611

Phone #: (312) 744 - 7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: ALAN STARK 312-617-4233
Project ID / Location: SWDP CRIB Cr 6+ surveys

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other Buffer
3. HNO_3 6. MeOH

Analyses: Hexavalent Cr 6+ / Client Provided Sample Container

EMT USE ONLY
EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Cr 6+	Client Provided Sample Container
Crib 3674534	8	100mL	P	1	DB	4-14-17	0000	pH=9		8			
Crib 535	8	100mL	P	1	DB	4-14-17	0200			8			
Crib 536	8	100mL	P	1	DB	4-14-17	0400			8			
Crib 537	8	100mL	P	1	DB	4-14-17	0600			8			
Crib 538	8	100mL	P	1	CK	4-14-17	0800			8			

PURGE

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY
Alan Kunzelt	4-14-17 Time: 9:00A	Ted Zielinski	4-14-17 Time: 9:00A	Client Code:
Relinquished By: Ted Zielinski	Date: 4-14-17 Time: 12:50P	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: KDuw	Date: 4 14 17 Time: 12 50	Jar Lot No.

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: Drive Samples to Eurofins Lab for Analysis

Blue 5.4°C

EMT-FORM-GEN-028

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Eurofins Eaton Analytical
Run Log
Run ID: **228162** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3674841		RW	DP	04/14/2017 17:29	
IPC	3674843		RW	DP	04/14/2017 17:55	
LRB	3674844		RW	DP	04/14/2017 18:08	
LFB	3674845		RW	DP	04/14/2017 18:21	
FS	3674524	Crib	SW	DP	04/14/2017 18:34	
FS	3674525	Crib	SW	DP	04/14/2017 18:47	
FS	3674526	Crib	SW	DP	04/14/2017 19:00	
FS	3674527	Crib	SW	DP	04/14/2017 19:13	
FS	3674528	Crib	SW	DP	04/14/2017 19:26	
FS	3674529	Crib	SW	DP	04/14/2017 19:39	
FS	3674530	Crib	SW	DP	04/14/2017 19:52	
FS	3674531	Crib	SW	DP	04/14/2017 20:05	
FS	3674532	Crib	SW	DP	04/14/2017 20:18	
FS	3674533	Crib	SW	DP	04/14/2017 20:31	
MS	3674846	Crib	SW	DP	04/14/2017 20:44	
MSD	3674847	Crib	SW	DP	04/14/2017 20:57	
IPC	3674848		RW	DP	04/14/2017 21:10	
CCB	3674849		RW	DP	04/14/2017 21:23	
FS	3674534	Crib	SW	DP	04/14/2017 21:36	
FS	3674535	Crib	SW	DP	04/14/2017 21:49	
FS	3674536	Crib	SW	DP	04/14/2017 22:02	
FS	3674537	Crib	SW	DP	04/14/2017 22:15	
FS	3674538	Crib	SW	DP	04/14/2017 22:28	
MS	3674850	Crib	SW	DP	04/14/2017 22:41	
MSD	3674851	Crib	SW	DP	04/14/2017 23:01	
IPC	3674852		RW	DP	04/15/2017 00:18	
CCB	3674853		RW	DP	04/15/2017 00:31	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0192	1.0	ug/L	102	90 - 110	—	—	1.0	—	04/14/2017 17:29	3674841
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0001	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/14/2017 17:55	3674843
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 18:08	3674844
LFB	Chromium, Hexavalent	218.6	0.02	—		1.0078	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/14/2017 18:21	3674845
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 18:34	3674524
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 18:47	3674525
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 19:00	3674526
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 19:13	3674527
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 19:26	3674528
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 19:39	3674529
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 19:52	3674530
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 20:05	3674531
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 20:18	3674532
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 20:31	3674533
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1246	1.1511	ug/L	97	90 - 110	—	—	1.0	—	04/14/2017 20:44	3674846
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1213	1.1511	ug/L	97	90 - 110	0.3	10	1.0	—	04/14/2017 20:57	3674847
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0084	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/14/2017 21:10	3674848
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 21:23	3674849
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 21:36	3674534
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 21:49	3674535
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 22:02	3674536
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 22:15	3674537
FS	Chromium, Hexavalent	218.6	0.02	Crib		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 22:28	3674538
MS	Chromium, Hexavalent	218.6	0.02	Crib		1.1504	1.151999	ug/L	100	90 - 110	—	—	1.0	—	04/14/2017 22:41	3674850
MSD	Chromium, Hexavalent	218.6	0.02	Crib		1.1439	1.151999	ug/L	99	90 - 110	0.6	10	1.0	—	04/14/2017 23:01	3674851
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0167	1.0	ug/L	102	90 - 110	—	—	1.0	—	04/15/2017 00:18	3674852
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/15/2017 00:31	3674853

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT

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LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	E87775
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Mexico	IN00035
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035/E87775	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	200001	Rhode Island	LAO00343
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Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA160002	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

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Revision date: 04/14/2016

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South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Environmental Monitoring Technologies

Attn: Eric Jensen
8100 North Austin Avenue
Morton Grove, IL 60053

Report: 386753
Priority: Weekend or Holiday
Status: Final
PWS ID: Not Supplied

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3674777	1S Q2830	218.6	04/14/17 10:48	Client	04/14/17 21:52
3674778	1SD Q2831	218.6	04/14/17 10:49	Client	04/14/17 21:52
3674779	2S Q2832	218.6	04/14/17 11:18	Client	04/14/17 21:52
3674780	3S Q2833	218.6	04/14/17 11:41	Client	04/14/17 21:52
3674781	4S Q2834	218.6	04/14/17 12:04	Client	04/14/17 21:52
3674782	19GE Q2835	218.6	04/14/17 12:28	Client	04/14/17 21:52
3674783	19GED Q2836	218.6	04/14/17 12:30	Client	04/14/17 21:52
3674784	4G Q2837	218.6	04/14/17 12:38	Client	04/14/17 21:52
3674785	3G Q2838	218.6	04/14/17 12:45	Client	04/14/17 21:52
3674786	2G Q2839	218.6	04/14/17 12:51	Client	04/14/17 21:52
3674787	1G Q#2840	218.6	04/14/17 12:59	Client	04/14/17 21:52
3674788	1GD Q#2841	218.6	04/14/17 13:00	Client	04/14/17 21:52
3674789	13GE Q#2842	218.6	04/14/17 13:09	Client	04/14/17 21:52
3674790	14GE Q#2843	218.6	04/14/17 13:19	Client	04/14/17 21:52
3674791	14GED Q#2844	218.6	04/14/17 13:20	Client	04/14/17 21:52
3674792	15GE Q#2845	218.6	04/14/17 13:25	Client	04/14/17 21:52
3674793	16GE Q#2846	218.6	04/14/17 13:34	Client	04/14/17 21:52
3674794	8G Q#2847	218.6	04/14/17 13:41	Client	04/14/17 21:52
3674795	7G Q#2848	218.6	04/14/17 13:47	Client	04/14/17 21:52
3674796	6G Q#2849	218.6	04/14/17 13:54	Client	04/14/17 21:52
3674797	5G Q2850	218.6	04/14/17 14:01	Client	04/14/17 21:52
3674798	20GE Q2851	218.6	04/14/17 14:07	Client	04/14/17 21:52
3674799	21GE Q2852	218.6	04/14/17 14:14	Client	04/14/17 21:52
3674800	12G Q2853	218.6	04/14/17 14:24	Client	04/14/17 21:52
3674801	12GD Q2854	218.6	04/14/17 14:25	Client	04/14/17 21:52
3674802	11G Q2855	218.6	04/14/17 14:33	Client	04/14/17 21:52
3674803	10G Q2856	218.6	04/14/17 14:40	Client	04/14/17 21:52
3674804	9G Q2857	218.6	04/14/17 14:48	Client	04/14/17 21:52
3674805	17GE Q2858	218.6	04/14/17 14:56	Client	04/14/17 21:52
3674806	18GE Q2859	218.6	04/14/17 15:04	Client	04/14/17 21:52
3674807	18GED Q#2860	218.6	04/14/17 15:05	Client	04/14/17 21:52

3674808	22GE Q#2861	218.6	04/14/17 15:24	Client	04/14/17 21:52
3674809	23GE Q#2862	218.6	04/14/17 15:29	Client	04/14/17 21:52
3674810	24GE Q#2863	218.6	04/14/17 15:34	Client	04/14/17 21:52
3674811	25GE Q#2864	218.6	04/14/17 15:38	Client	04/14/17 21:52
3674812	25GED Q#2865	218.6	04/14/17 15:39	Client	04/14/17 21:52

Report Summary

Note: Sample containers were provided by the client.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Nathan Trowbridge at (574) 233-4777.

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Authorized Signature Title 04/17/2017 Date

Client Name: Environmental Monitoring Technologies

Report #: 386753

Sampling Point: 1S Q2830

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/14/17 23:13	3674777

Sampling Point: 1SD Q2831

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/14/17 23:26	3674778

Sampling Point: 2S Q2832

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.19**	ug/L	---	04/14/17 23:39	3674779

Sampling Point: 3S Q2833

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.19**	ug/L	---	04/14/17 23:52	3674780

Sampling Point: 4S Q2834

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.20**	ug/L	---	04/15/17 00:05	3674781

Sampling Point: 19GE Q2835

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.62**	ug/L	---	04/15/17 16:54	3674782

Client Name: Environmental Monitoring Technologies

Report #: 386753

Sampling Point: 19GED Q2836

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.60**	ug/L	---	04/15/17 17:06	3674783

Sampling Point: 4G Q2837

PWS ID: Not Supplied.

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.45**	ug/L	---	04/15/17 17:19	3674784

Sampling Point: 3G Q2838

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.59**	ug/L	---	04/15/17 17:32	3674785

Sampling Point: 2G Q2839

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.31**	ug/L	---	04/15/17 17:45	3674786

Sampling Point: 1G Q#2840

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.28**	ug/L	---	04/15/17 17:58	3674787

Sampling Point: 1GD Q#2841

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.29**	ug/L	---	04/15/17 18:11	3674788

Client Name: Environmental Monitoring Technologies

Report #: 386753

Sampling Point: 13GE Q#2842

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.18**	ug/L	---	04/15/17 18:24	3674789

Sampling Point: 14GE Q#2843

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/15/17 18:37	3674790

Sampling Point: 14GED Q#2844

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/15/17 18:50	3674791

Sampling Point: 15GE Q#2845

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/15/17 19:55	3674792

Sampling Point: 16GE Q#2846

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.30**	ug/L	---	04/15/17 20:08	3674793

Sampling Point: 8G Q#2847

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.18**	ug/L	---	04/15/17 20:21	3674794

Client Name: Environmental Monitoring Technologies

Report #: 386753

Sampling Point: 7G Q#2848

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.23	ug/L	---	04/15/17 20:34	3674795

Sampling Point: 6G Q#2849

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.53	ug/L	---	04/15/17 20:47	3674796

Sampling Point: 5G Q2850

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.53	ug/L	---	04/15/17 21:00	3674797

Sampling Point: 20GE Q2851

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.55	ug/L	---	04/15/17 21:13	3674798

Sampling Point: 21GE Q2852

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.55	ug/L	---	04/15/17 21:26	3674799

Sampling Point: 12G Q2853

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	0.50	ug/L	---	04/15/17 21:39	3674800

Client Name: Environmental Monitoring Technologies

Report #: 386753

Sampling Point: 12GD Q2854

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.52**	ug/L	---	04/15/17 21:52	3674801

Sampling Point: 11G Q2855

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.57**	ug/L	---	04/15/17 23:23	3674802

Sampling Point: 10G Q2856

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.30**	ug/L	---	04/15/17 23:36	3674803

Sampling Point: 9G Q2857

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.20**	ug/L	---	04/15/17 23:49	3674804

Sampling Point: 17GE Q2858

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.20**	ug/L	---	04/16/17 00:02	3674805

Sampling Point: 18GE Q2859

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.16**	ug/L	---	04/16/17 00:15	3674806

Client Name: Environmental Monitoring Technologies

Report #: 386753

Sampling Point: 18GED Q#2860

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.15**	ug/L	---	04/16/17 00:28	3674807

Sampling Point: 22GE Q#2861

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.39**	ug/L	---	04/16/17 00:41	3674808

Sampling Point: 23GE Q#2862

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.59**	ug/L	---	04/16/17 00:54	3674809

Sampling Point: 24GE Q#2863

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.51**	ug/L	---	04/16/17 01:07	3674810

Sampling Point: 25GE Q#2864

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.49**	ug/L	---	04/16/17 01:20	3674811

Sampling Point: 25GED Q#2865

PWS ID: Not Supplied

General Chemistry									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
18540-29-9	Chromium, Hexavalent	218.6	---	0.02	**0.45**	ug/L	---	04/16/17 02:25	3674812

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample al6iquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Client Provided Sample Container

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21927

Company: CHICAGO DEPARTMENT OF WATER
Address: 1600 EAST OHIO STREET
CHICAGO, IL 60611

Phone #: (312) 744 - 7733 Fax #: (____) ____-____
P.O. #: ____ Proj.#: ____-____
Client Contact: ALAN STARK 312-612-4233
Project ID / Location: ~~SLIP CREEK~~ C.C.C. + SURVEY CHICAGO MICHIGAN

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater SURFACE WATER

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4 NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH BUFFER

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium							EMT USE ONLY / EMT WORKORDER #
1S Q2830	8		P		VS	4.14.17	10:48		10			✓							3674777
1SD Q2831	8		P		VS	4.14.17	10:49		10			✓							778
2S Q2832	8		P		VS	4.14.17	11:18		8			✓							779
3S Q2833	8		P		VS	4.14.17	11:41		7			✓							780
4S Q2834	8		P		VS	4.14.17	12:04		8			✓							781
1GE Q2835	8		P		VS	4.14.17	12:28		9			✓							782
1GED Q2836	8		P		VS	4.14.17	12:30		9			✓							783
4G Q2837	8		P		VS	4.14.17	12:38		10			✓							784
3G Q2838	8		P		VS	4.14.17	12:45		10			✓							785
2G Q2839	8		P		VS	4.14.17	12:51		10			✓							786

Relinquished By:	Date: 4-14-17 Time: 21:52	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-14-17 Time: 9:52	Jar Lot No.

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Client Provided Sample Container

Chain of Custody Record

318030
386753

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Due Date: ___-___-___ COC #: 21930

Company: Illinois Department of Water Management
Address: 1000 E Ohio St
Chicago IL 60611

Phone #: (312) 744-7733 Fax #: (___) ___-___
P.O. #: ___ Proj. #: ___
Client Contact: Alan Stark (312) 817-4233
Project ID / Location: Lr Lr Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater Surface water

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other Butter
3. HNO_3 6. MeOH

Analyses: Hexavalent Chromium

EMT USE ONLY

EMT WORKORDER #

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium	EMT Workorder #
1G Q#2840	8		P		VS	4/14/17	1259		10			✓	3074787
1GD Q#2841	8		P		VS	4/14/17	1300		10			✓	788
1GE Q#2842	8		P		VS	4/14/17	1309		10			✓	789
14GE Q#2843	8		P		VS	4/14/17	1319		10			✓	790
14GED Q#2844	8		P		VS	4/14/17	1330		10			✓	791
15GE Q#2845	8		P		VS	4/14/17	1325		10			✓	792
16GE Q#2846	8		P		VS	4/14/17	1334		10			✓	793
8G Q#2847	8		P		VS	4/14/17	1341		10			✓	794
7G Q#2848	8		P		VS	4/14/17	1347		10			✓	795
6G Q#2849	8		P		VS	4/17/17	1354		10			✓	796

Relinquished By:	Date: 4-14-17 Time: 21:52	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-14-17 Time: 9:52	Jar Lot No.

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

Client Provided Sample Container

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Due Date: ____-____-____ COC #: 21934

Company: CHICAGO DEPARTMENT OF WATER
Address: 1000 EAST OHIO STREET
CHICAGO IL 60611

Phone #: (312) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____-____
Client Contact: ALAN STARK 312-617-4233
Project ID / Location: CRG LAKE MICHIGAN

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium							EMT USE ONLY / EMT WORKORDER #
5G G2850	8		P		VS	4.14.17	1401		10			✓							3674497
20GE G2851	8		P		VS	4.14.17	1407		10			✓							798
21GE G2852	8		P		VS	4.14.17	1414		10			✓							799
12G G2853	8		P		VS	4.14.17	1424		10			✓							800
11GD G2854	8		P		VS	4.14.17	1425		10			✓							801
11G G2855	8		P		VS	4.14.17	1433		10			✓							802
11G G2856	8		P		VS	4.14.17	1440		10			✓							803
9G G2857	8		P		VS	4.14.17	1448		10			✓							804
17GE G2858	8		P		VS	4.14.17	1456		10			✓							805
18GE G2859	8		P		VS	4.14.17	1504		10			✓							806

Relinquished By:	Date: 4-14-17 Time: 21:52	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-14-17 Time: 9:52	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

EMT-FORM-GEN-028

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue
Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Client Provided Sample Container

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 21932

Company: Illinois Department of Water Management
Address: 1000 E Ohio St.
Indianapolis IL 46204

Phone #: (317) 744-7733 Fax #: (____) ____-____
P.O. #: ____ Proj. #: ____
Client Contact: Ann Mark (312) 917-4223
Project ID / Location: Crib Lake Michigan

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other Surface water
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other Buffer
3. HNO_3 6. MeOH

Analyses: Hexavalent Chromium

EMT USE ONLY

EMT WORKORDER #____

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	Hexavalent Chromium	EMT Workorder #
18GED Q#23160	8		P		VS	4/14/17	1505		10			✓	36748 07
22GE Q#23161	8		P		VS	4/14/17	1524		10			✓	808
23GE Q#23162	8		P		VS	4/14/17	1529		10			✓	809
24GE Q#23163	8		P		VS	4/14/17	1534		10			✓	810
25GE Q#23164	8		P		VS	4/14/17	1538		10			✓	811
25GED Q#23165	8		P		VS	4/14/17	1539		10			✓	812

Relinquished By:	Date: 4-14-17 Time: 21:52	Received By:	Date: - - Time: :	EMT USE ONLY Client Code:	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 4-14-17 Time: 9:52	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

EMT-FORM-GEN-028

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Eurofins Eaton Analytical
Run Log
Run ID: **228162** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3674841		RW	DP	04/14/2017 17:29	
LRB	3674844		RW	DP	04/14/2017 18:08	
LFB	3674845		RW	DP	04/14/2017 18:21	
IPC	3674848		RW	DP	04/14/2017 21:10	
CCB	3674849		RW	DP	04/14/2017 21:23	
FS	3674777	1S Q2830	SW	DP	04/14/2017 23:13	
FS	3674778	1SD Q2831	SW	DP	04/14/2017 23:26	
FS	3674779	2S Q2832	SW	DP	04/14/2017 23:39	
FS	3674780	3S Q2833	SW	DP	04/14/2017 23:52	
FS	3674781	4S Q2834	SW	DP	04/15/2017 00:05	
IPC	3674852		RW	DP	04/15/2017 00:18	
CCB	3674853		RW	DP	04/15/2017 00:31	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0192	1.0	ug/L	102	90 - 110	—	—	1.0	—	04/14/2017 17:29	3674841
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 18:08	3674844
LFB	Chromium, Hexavalent	218.6	0.02	—		1.0078	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/14/2017 18:21	3674845
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0084	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/14/2017 21:10	3674848
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/14/2017 21:23	3674849
FS	Chromium, Hexavalent	218.6	0.02	1S Q2830		0.16		ug/L	—	—	—	—	1.0	—	04/14/2017 23:13	3674777
FS	Chromium, Hexavalent	218.6	0.02	1SD Q2831		0.15		ug/L	—	—	—	—	1.0	—	04/14/2017 23:26	3674778
FS	Chromium, Hexavalent	218.6	0.02	2S Q2832		0.19		ug/L	—	—	—	—	1.0	—	04/14/2017 23:39	3674779
FS	Chromium, Hexavalent	218.6	0.02	3S Q2833		0.19		ug/L	—	—	—	—	1.0	—	04/14/2017 23:52	3674780
FS	Chromium, Hexavalent	218.6	0.02	4S Q2834		0.20		ug/L	—	—	—	—	1.0	—	04/15/2017 00:05	3674781
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0167	1.0	ug/L	102	90 - 110	—	—	1.0	—	04/15/2017 00:18	3674852
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/15/2017 00:31	3674853

eurofins | Eaton Analytical

Eurofins Eaton Analytical
Run Log
Run ID: **228166** Method: **218.6**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	3674886		RW	DP	04/15/2017 15:49	
IPC	3674888		RW	DP	04/15/2017 16:15	
LRB	3674889		RW	DP	04/15/2017 16:28	
LFB	3674890		RW	DP	04/15/2017 16:41	
FS	3674782	19GE Q2835	SW	DP	04/15/2017 16:54	
FS	3674783	19GED Q2836	SW	DP	04/15/2017 17:06	
FS	3674784	4G Q2837	SW	DP	04/15/2017 17:19	
FS	3674785	3G Q2838	SW	DP	04/15/2017 17:32	
FS	3674786	2G Q2839	SW	DP	04/15/2017 17:45	
FS	3674787	1G Q#2840	SW	DP	04/15/2017 17:58	
FS	3674788	1GD Q#2841	SW	DP	04/15/2017 18:11	
FS	3674789	13GE Q#2842	SW	DP	04/15/2017 18:24	
FS	3674790	14GE Q#2843	SW	DP	04/15/2017 18:37	
FS	3674791	14GED Q#2844	SW	DP	04/15/2017 18:50	
MS	3674891	14GED Q#2844	SW	DP	04/15/2017 19:03	
MSD	3674892	14GED Q#2844	SW	DP	04/15/2017 19:16	
IPC	3674893		RW	DP	04/15/2017 19:29	
CCB	3674894		RW	DP	04/15/2017 19:42	
FS	3674792	15GE Q#2845	SW	DP	04/15/2017 19:55	
FS	3674793	16GE Q#2846	SW	DP	04/15/2017 20:08	
FS	3674794	8G Q#2847	SW	DP	04/15/2017 20:21	
FS	3674795	7G Q#2848	SW	DP	04/15/2017 20:34	
FS	3674796	6G Q#2849	SW	DP	04/15/2017 20:47	
FS	3674797	5G Q2850	SW	DP	04/15/2017 21:00	
FS	3674798	20GE Q2851	SW	DP	04/15/2017 21:13	
FS	3674799	21GE Q2852	SW	DP	04/15/2017 21:26	
FS	3674800	12G Q2853	SW	DP	04/15/2017 21:39	
FS	3674801	12GD Q2854	SW	DP	04/15/2017 21:52	
MS	3674895	12GD Q2854	SW	DP	04/15/2017 22:05	
MSD	3674896	12GD Q2854	SW	DP	04/15/2017 22:18	
IPC	3674897		RW	DP	04/15/2017 22:31	
CCB	3674898		RW	DP	04/15/2017 22:44	
LRB	3674899		RW	DP	04/15/2017 22:57	

LFB	3674900		RW	DP	04/15/2017 23:10
FS	3674802	11G Q2855	SW	DP	04/15/2017 23:23
FS	3674803	10G Q2856	SW	DP	04/15/2017 23:36
FS	3674804	9G Q2857	SW	DP	04/15/2017 23:49
FS	3674805	17GE Q2858	SW	DP	04/16/2017 00:02
FS	3674806	18GE Q2859	SW	DP	04/16/2017 00:15
FS	3674807	18GED Q#2860	SW	DP	04/16/2017 00:28
FS	3674808	22GE Q#2861	SW	DP	04/16/2017 00:41
FS	3674809	23GE Q#2862	SW	DP	04/16/2017 00:54
FS	3674810	24GE Q#2863	SW	DP	04/16/2017 01:07
FS	3674811	25GE Q#2864	SW	DP	04/16/2017 01:20
MS	3674901	25GE Q#2864	SW	DP	04/16/2017 01:33
MSD	3674902	25GE Q#2864	SW	DP	04/16/2017 01:46
IPC	3674903		RW	DP	04/16/2017 01:59
CCB	3674904		RW	DP	04/16/2017 02:12
FS	3674812	25GED Q#2865	SW	DP	04/16/2017 02:25
MS	3674905	25GED Q#2865	SW	DP	04/16/2017 02:38
MSD	3674906	25GED Q#2865	SW	DP	04/16/2017 02:51
IPC	3674907		RW	DP	04/16/2017 03:04
CCB	3674908		RW	DP	04/16/2017 03:18

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	Chromium, Hexavalent	218.6	0.02	—		1.0583	1.0	ug/L	106	90 - 110	—	—	1.0	—	04/15/2017 15:49	3674886
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0149	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/15/2017 16:15	3674888
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/15/2017 16:28	3674889
LFB	Chromium, Hexavalent	218.6	0.02	—		0.9955	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/15/2017 16:41	3674890
FS	Chromium, Hexavalent	218.6	0.02	19GE Q2835		0.62		ug/L	—	—	—	—	1.0	—	04/15/2017 16:54	3674782
FS	Chromium, Hexavalent	218.6	0.02	19GED Q2836		0.60		ug/L	—	—	—	—	1.0	—	04/15/2017 17:06	3674783
FS	Chromium, Hexavalent	218.6	0.02	4G Q2837		0.45		ug/L	—	—	—	—	1.0	—	04/15/2017 17:19	3674784
FS	Chromium, Hexavalent	218.6	0.02	3G Q2838		0.59		ug/L	—	—	—	—	1.0	—	04/15/2017 17:32	3674785
FS	Chromium, Hexavalent	218.6	0.02	2G Q2839		0.31		ug/L	—	—	—	—	1.0	—	04/15/2017 17:45	3674786
FS	Chromium, Hexavalent	218.6	0.02	1G Q#2840		0.28		ug/L	—	—	—	—	1.0	—	04/15/2017 17:58	3674787
FS	Chromium, Hexavalent	218.6	0.02	1GD Q#2841		0.29		ug/L	—	—	—	—	1.0	—	04/15/2017 18:11	3674788
FS	Chromium, Hexavalent	218.6	0.02	13GE Q#2842		0.18		ug/L	—	—	—	—	1.0	—	04/15/2017 18:24	3674789
FS	Chromium, Hexavalent	218.6	0.02	14GE Q#2843		0.16		ug/L	—	—	—	—	1.0	—	04/15/2017 18:37	3674790
FS	Chromium, Hexavalent	218.6	0.02	14GED Q#2844		0.16		ug/L	—	—	—	—	1.0	—	04/15/2017 18:50	3674791
MS	Chromium, Hexavalent	218.6	0.02	14GED Q#2844		1.0907	1.1612	ug/L	93	90 - 110	—	—	1.0	—	04/15/2017 19:03	3674891
MSD	Chromium, Hexavalent	218.6	0.02	14GED Q#2844		1.1098	1.1612	ug/L	95	90 - 110	1.7	10	1.0	—	04/15/2017 19:16	3674892
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0126	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/15/2017 19:29	3674893
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/15/2017 19:42	3674894
FS	Chromium, Hexavalent	218.6	0.02	15GE Q#2845		0.16		ug/L	—	—	—	—	1.0	—	04/15/2017 19:55	3674792
FS	Chromium, Hexavalent	218.6	0.02	16GE Q#2846		0.30		ug/L	—	—	—	—	1.0	—	04/15/2017 20:08	3674793
FS	Chromium, Hexavalent	218.6	0.02	8G Q#2847		0.18		ug/L	—	—	—	—	1.0	—	04/15/2017 20:21	3674794
FS	Chromium, Hexavalent	218.6	0.02	7G Q#2848		0.23		ug/L	—	—	—	—	1.0	—	04/15/2017 20:34	3674795
FS	Chromium, Hexavalent	218.6	0.02	6G Q#2849		0.53		ug/L	—	—	—	—	1.0	—	04/15/2017 20:47	3674796
FS	Chromium, Hexavalent	218.6	0.02	5G Q2850		0.53		ug/L	—	—	—	—	1.0	—	04/15/2017 21:00	3674797
FS	Chromium, Hexavalent	218.6	0.02	20GE Q2851		0.55		ug/L	—	—	—	—	1.0	—	04/15/2017 21:13	3674798
FS	Chromium, Hexavalent	218.6	0.02	21GE Q2852		0.55		ug/L	—	—	—	—	1.0	—	04/15/2017 21:26	3674799
FS	Chromium, Hexavalent	218.6	0.02	12G Q2853		0.50		ug/L	—	—	—	—	1.0	—	04/15/2017 21:39	3674800
FS	Chromium, Hexavalent	218.6	0.02	12GD Q2854		0.52		ug/L	—	—	—	—	1.0	—	04/15/2017 21:52	3674801
MS	Chromium, Hexavalent	218.6	0.02	12GD Q2854		1.4528	1.5168	ug/L	94	90 - 110	—	—	1.0	—	04/15/2017 22:05	3674895
MSD	Chromium, Hexavalent	218.6	0.02	12GD Q2854		1.4429	1.5168	ug/L	93	90 - 110	0.7	10	1.0	—	04/15/2017 22:18	3674896
IPC	Chromium, Hexavalent	218.6	0.02	—		1.0143	1.0	ug/L	101	90 - 110	—	—	1.0	—	04/15/2017 22:31	3674897
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/15/2017 22:44	3674898
LRB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/15/2017 22:57	3674899
LFB	Chromium, Hexavalent	218.6	0.02	—		1.0043	1.0	ug/L	100	90 - 110	—	—	1.0	—	04/15/2017 23:10	3674900
FS	Chromium, Hexavalent	218.6	0.02	11G Q2855		0.57		ug/L	—	—	—	—	1.0	—	04/15/2017 23:23	3674802
FS	Chromium, Hexavalent	218.6	0.02	10G Q2856		0.30		ug/L	—	—	—	—	1.0	—	04/15/2017 23:36	3674803

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FS	Chromium, Hexavalent	218.6	0.02	9G Q2857		0.20		ug/L	—	—	—	—	1.0	—	04/15/2017 23:49	3674804
FS	Chromium, Hexavalent	218.6	0.02	17GE Q2858		0.20		ug/L	—	—	—	—	1.0	—	04/16/2017 00:02	3674805
FS	Chromium, Hexavalent	218.6	0.02	18GE Q2859		0.16		ug/L	—	—	—	—	1.0	—	04/16/2017 00:15	3674806
FS	Chromium, Hexavalent	218.6	0.02	18GED Q#2860		0.15		ug/L	—	—	—	—	1.0	—	04/16/2017 00:28	3674807
FS	Chromium, Hexavalent	218.6	0.02	22GE Q#2861		0.39		ug/L	—	—	—	—	1.0	—	04/16/2017 00:41	3674808
FS	Chromium, Hexavalent	218.6	0.02	23GE Q#2862		0.59		ug/L	—	—	—	—	1.0	—	04/16/2017 00:54	3674809
FS	Chromium, Hexavalent	218.6	0.02	24GE Q#2863		0.51		ug/L	—	—	—	—	1.0	—	04/16/2017 01:07	3674810
FS	Chromium, Hexavalent	218.6	0.02	25GE Q#2864		0.49		ug/L	—	—	—	—	1.0	—	04/16/2017 01:20	3674811
MS	Chromium, Hexavalent	218.6	0.02	25GE Q#2864		1.4967	1.4943	ug/L	100	90 - 110	—	—	1.0	—	04/16/2017 01:33	3674901
MSD	Chromium, Hexavalent	218.6	0.02	25GE Q#2864		1.4883	1.4943	ug/L	99	90 - 110	0.6	10	1.0	—	04/16/2017 01:46	3674902
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9850	1.0	ug/L	98	90 - 110	—	—	1.0	—	04/16/2017 01:59	3674903
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/16/2017 02:12	3674904
FS	Chromium, Hexavalent	218.6	0.02	25GED Q#2865		0.45		ug/L	—	—	—	—	1.0	—	04/16/2017 02:25	3674812
MS	Chromium, Hexavalent	218.6	0.02	25GED Q#2865		1.4820	1.448299	ug/L	103	90 - 110	—	—	1.0	—	04/16/2017 02:38	3674905
MSD	Chromium, Hexavalent	218.6	0.02	25GED Q#2865		1.4878	1.448299	ug/L	104	90 - 110	0.4	10	1.0	—	04/16/2017 02:51	3674906
IPC	Chromium, Hexavalent	218.6	0.02	—		0.9837	1.0	ug/L	98	90 - 110	—	—	1.0	—	04/16/2017 03:04	3674907
CCB	Chromium, Hexavalent	218.6	0.02	—	<	0.02		ug/L	—	—	—	—	1.0	—	04/16/2017 03:18	3674908

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCB	Continuing Calibration Blank		
FS	Field Sample		
IPC	Instrument Performance Check		
LFB	Laboratory Fortified Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
QCS	Quality Control Sample		

END OF REPORT