LABORATORY REPORT

This report contains pages. (including the cover page)

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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Laboratory Report

Client:

Pall Life Sciences

Report:

270470

Attn:

John Campbell

Priority:

Standard Written

600 South Wagner Road

Status:

Final

Ann Arbor, MI 48103

PWS ID:

Not Supplied

Copies

to: La

Laurel Beyer

Sample Information												
UL ID#	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time							
2537353	Outfall	317.0	10/04/11 00:00	Client	10/25/11 09:30							
2537354	Outfall	317.0	10/05/11 00:00	Client	10/25/11 09:30							
2537355	Outfall	317.0	10/06/11 00:00	Client	10/25/11 09:30							
2537356	Outfall	317.0	10/09/11 00:00	Client	10/25/11 09:30							
2537357	Outfall	317.0	10/10/11 00:00	Client	10/25/11 09:30							
2537358	Outfall	317.0	10/11/11 00:00	Client	10/25/11 09:30							
2537359	Outfall	317.0	10/12/11 00:00	Client	10/25/11 09:30							
2537360	Outfall	317.0	10/13/11 00:00	Client	10/25/11 09:30							
2537361	Outfall	317.0	10/16/11 00:00	Client	10/25/11 09:30							
2537362	Outfall	317.0	10/17/11 00:00	Client	10/25/11 09:30							
2537363	Outfall	317.0	10/18/11 00:00	Client	10/25/11 09:30							
2537364	Outfall	317.0	10/19/11 00:00	Client	10/25/11 09:30							
2537365	Outfall	317.0	10/20/11 00:00	Client	10/25/11 09:30							
2537366	Outfall	317.0	10/23/11 00:00	Client	10/25/11 09:30							

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 nesitate to call Traci Chlebowski at (574) 233-4777.

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Authorized Signature

Title `

Date

Client Name:

Pall Life Sciences

Report #:

270470

Page 1 of 5

Report #: 270470

Sampling Point: Outfall

PWS ID: Not Supplied

			Gene	ral Che	emistry				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	7.2	ug/L		11/01/11 12:13	2537353

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry												
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#				
15541-45-4	Bromate	317.0	10 *	1.0	7.6	ug/L		11/01/11 12:36	2537354				

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry											
Analyte	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL. ID#			
15541-45-4	Bromate	317.0	10 *	1.0	6.6	ug/L		11/01/11 11:04	2537355			

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry											
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#			
15541-45-4	Bromate	317.0	10 *	1.0	6.8	ug/L	•••	11/01/11 12:59	2537356			

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry												
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#				
15541-45-4	Bromate	317.0	10 *	1.0	6.4	ug/L	The second secon	11/01/11 13:22	2537357				

Report #: 270470

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry											
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#			
15541-45-4	Bromate	317.0	10 *	1.0	6.9	ug/L.		11/01/11 13:45	2537358			

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry											
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#			
15541-45-4	Bromate	317.0	10 *	1.0	7.1	ug/L		11/01/11 14:08				

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry											
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#			
15541-45-4	Bromate	317.0	10 *	1.0	7.4	ug/L		11/01/11 14:31				

Sampling Point: Outfall

PWS ID: Not Supplied

12.12	General Chemistry											
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#			
15541-45-4	Bromate	317.0	10 *	1.0	7.8	ug/l.		11/01/11 14:54	2537361			

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry											
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#			
	Bromate	317.0	10 *	1.0	8.3	ug/L		11/01/11 15:17	2537362			

Report #: 270470

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry											
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#			
15541-45-4	Bromate	317.0	10 *	1.0	8.2	ug/L		11/01/11 17:58	2537363			

Sampling Point: Outfall

PWS ID: Not Supplied

			Gene	ral Ch	emistry				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	8.5	ug/L		11/01/11 16:03	2537364

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry													
Analyte	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#					
15541-45-4	Bromate	317.0	10 *	1.0	8.0	ug/L		11/01/11 17:12	2537365					

Sampling Point: Outfall

PWS ID: Not Supplied

			Gene	ral Ch	emistry				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	8.4	ug/L		11/01/11 17:35	2537366

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

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		SMCL	Δ1
Reg Limit Type:	MCL		Λ <u>-</u>
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Symbol:	*	۸ ا	!

Client Name: Pall Life Sciences Report #: 270470

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.

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.

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) - 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 LTB container follows the collection bottles to and from the collection site, but the LTB is not opened at any time during the trip. LTB is not exposed to site conditions or pumping and collection equipment. The LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Matrix Duplicate (LFD) - is a sample aliquot 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.

Matrix Spike Sample (MS) / Laboratory Fortified Matrix (LFM) - 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.

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.

Run Number: 162201 PC File Name: 102711B Order Number: 214889

Instrument: IC DP Analyst: J. Timm Receipt Batch: 270470 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/04/2011

Client: Pall Life Sciences / John Campbell

Generated By: S. Dungy

Sample ID: 2541723 Extracted: N/A

Type: Laboratory Reagent Blank

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Analyzed: 11/01/2011 09:32

Amount Report Units ~~~~~~

Sample ID: 2541724 Extracted: N/A

Type: Instrument Performance Check

0.0000 < 1.0 ug/L

CAS Number Parameter

Analyzed: 11/01/2011 09:55 Dil Factor: 1.000

____ 1.0

Target Amount % Rec Limits P/F _____ 1.1805 15541-45-4 Bromate 1.0 118 75-125

Sample ID: 2541725 Extracted: N/A

Type: Laboratory Fortified Blank Analyzed: 11/01/2011 10:18

Dil Factor: 1.000

Target Amount % Rec Limits CAS Number Parameter _____ ----_____ ____ 5.0210 100 5.0 85-115 15541-45-4 Bromate Pass

Sample ID: 2541726 Extracted: N/A Type: Quality Control Sample Analyzed: 11/01/2011 10:41

Dil Factor: 1.000

Target Amount % Rec Limits P/F CAS Number Parameter _____ 5.0737 101 85-115 Pass 5.0 15541-45-4 Bromate

Sample ID: 2537355 Extracted: N/A

Type: Field Sample

Site: Outfall

Type: Field Sample Analyzed: 11/01/2011 11:04 Dil Factor: 3.000

Amount Report Units CAS Number Parameter 6.6111 6.6 ug/L ____ ____ 1.0 15541-45-4 Bromate

Sample ID: 2541727 Extracted: N/A

Type: Matrix Spike of 2537355 Analyzed: 11/01/2011 11:27

Site: Outfall Dil Factor: 3.000

Amount Parent Amt %Rec Limits P/F CAS Number Parameter Target ______ ____ 5.0 20.2785 6.6111 91 75-125 Pass 15541-45-4 Bromate

Sample ID: 2541728 Extracted: N/A

Type: Matrix Spike Duplicate of 2537355 Site: Outfall Analyzed: 11/01/2011 11:50

Dil Factor: 3.000

Target CAS Number Parameter Amount Parent Amt %Rec Limits P/F ______ 5.0 20.7387 6.6111 94 75-125 Pass 15541-45-4 Bromate

Sample ID: 2537353 Extracted: N/A

Type: Field Sample

Site: Outfall Type: Field Sample Site: Outrall Analyzed: 11/01/2011 12:13 Dil Factor: 3.000

Amount Report Units
7.1865 7.2 ug/L MRL CAS Number Parameter 15541-45-4 Bromate 1.0

Sample ID: 2537354 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 12:36 Site: Outfall Dil Factor: 3.000

Report Units MRL Amount CAS Number Parameter 1.0 7.5990 7.6 ug/L 15541-45-4 Bromate

Run Number: 162201 PC File Name: 102711B Order Number: 214889

Instrument: IC DP Analyst: J. Timm Receipt Batch: 270470 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/04/2011

Client: Pall Life Sciences / John Campbell

Generated By: S. Dungy

Sample ID: 2537356 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 12:59

Site: Outfall Dil Factor: 3.000

15541-45-4 Bromate

CAS Number Parameter

MRL

Report Units -----

Sample ID: 2537357 Extracted: N/A

Type: Field Sample

Site: Outfall

Analyzed: 11/01/2011 13:22

Dil Factor: 3.000

CAS Number Parameter 15541-45-4 Bromate

MRL Amount 1.0 6.4494 6.4 ug/L

1.0

1.0

1.0

Report Units

Sample ID: 2537358 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 13:45

Site: Outfall Dil Factor: 3.000

CAS Number Parameter 15541-45-4 Bromate

MRL

Amount Report Units

6.7512 6.8 ug/L

6.8766 6.9 ug/L

Sample ID: 2537359 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 14:08

Site: Outfall Dil Factor: 3.000

CAS Number Parameter 15541-45-4 Bromate

7.0914 7.1 ug/L

MRL Amount Report Units

Sample ID: 2537360 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 14:31 Site: Outfall Dil Factor: 3.000

CAS Number Parameter ______ 15541-45-4 Bromate

MRL

Amount Report Units

Amount

7.4304 7.4 ug/L

Sample ID: 2537361 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 14:54

Site: Outfall Dil Factor: 3.000

CAS Number Parameter 15541-45-4 Bromate

MRL Amount Report Units
1.0 7.8054 7.8 ug/L

Sample ID: 2537362 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 15:17 Site: Outfall Dil Factor: 3.000

CAS Number Parameter 15541-45-4 Bromate

MRL ____

Amount Report Units 1.0 8.2824 8.3 ug/L

Sample ID: 2541729 Extracted: N/A

Type: Continuing Calibration Check
Analyzed: 11/01/2011 15:40 Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Target Amount

P/F 10.4363 104 85-115 Pass

Sample ID: 2537364 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 16:03 Site: Outfall Dil Factor: 3.000

CAS Number Parameter ______

Amount Report Units

10.0

Run Number: 162201 PC File Name: 102711B Order Number: 214889

Instrument: IC DP Analyst: J. Timm Receipt Batch: 270470

Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/04/2011

Client: Pall Life Sciences / John Campbell

Generated By: S. Dungy

Sample ID: 2541730 Extracted: N/A

Type: Matrix Spike of 2537364 Analyzed: 11/01/2011 16:26

Site: Outfall Dil Factor: 3.000

CAS Number Parameter 15541-45-4 Bromate

Target 5.0 23.7171 8.4846 102 75-125 Pass

Amount Parent Amt %Rec Limits P/F _____

Sample ID: 2541731 Extracted: N/A

Type: Matrix Spike Duplicate of 2537364 Site: Outfall

CAS Number Parameter

Analyzed: 11/01/2011 16:49

Dil Factor: 3.000

15541-45-4 Bromate

_____ _____ 5.0

Target Amount Parent Amt %Rec Limits P/F

23.9907 8.4846 103 75-125 Pass

Sample ID: 2537365 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 17:12 Site: Outfall Dil Factor: 3.000

CAS Number Parameter ______

MRL

Amount 7.9536 8.0 ug/L

Report Units

15541-45-4 Bromate

____ 1.0

Sample ID: 2537366 Extracted: N/A

Type: Field Sample Analyzed: 11/01/2011 17:35

Site: Outfall Dil Factor: 3.000

CAS Number Parameter

8.4471

Amount Report Units 8.4 ug/L

15541-45-4 Bromate

----1 0

Extracted: N/A

Type: Field Sample

Site: Outfall

CAS Number Parameter

Sample ID: 2537363

Analyzed: 11/01/2011 17:58

Dil Factor: 3.000

15541-45-4 Bromate

Amount

Report Units 8.1750 8.2 ug/L

Sample ID: 2541732 Extracted: N/A

Type: Continuing Calibration Check

Analyzed: 11/01/2011 18:21

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Target 15.0

1.0

15.8177 105

Amount

% Rec Limits

P/F 85-115 Pass



Pall Corporation

Environmental Laboratory Services

600 South Wagner Rd. Ann Arbor, MI 48103-9019 Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

Name Susan E.D. Peters Street 1:008044 Wagner Rd. Bldg#4 City Ann Arkor State M. Zip 48103 Projet	quested Turnaround: Standard * 4 business days * 3 business days 48 hours * 24 hours * ASAP / Same day ject Name / Number: t Sampler Name: Dice To:
------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------

			W	ater	Mat	rix	و و	Z.			Preservation					
Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Drinking	Ground	ste	er 	Number c	ntainer	Requested Testing	ā	U]3	ŏ	er	Lab ID
- Respective			ă	Gro	Waste	Other	Z	ខ	Bromate	None	0 4	HCI	HNO3	H ₂ SO ₄	Other	
1 HC/AR COR P	10 /30 / 11	08:40				1	1		317		V	l				
2 HCHRP	10/21/11	०४:35				~	1_1		317		V					
3 Outfall	10/04/11	composite				~	1		34		V					2537363
4 Outfall	10/05/,11	composite				V	1	1	317		/					1334
5 Outfall	10/06/11	composite				V	į	1	317		~					1355
6 Outrall		composite			-	V	١)	F16		1					336
7 Octtall	10/10/11	composite				V	1		317		\			-		357
8 Outfall	10 / 11 / H	Composite				1	1	<u> </u>	FIE		V					358
9 Duttall	10/12/11	COMBORIZE				1	1		317		1					359
10 Out Fall	10/13/11	composite				1	1		317		V					1300
Released by Sampler:	Date: 1 · 1	Time: :	Red	ceived	by:								Date	: /	1	Time: :
Released by Silvanie Rusein	Date:10 64/ 11	Time: :	Red	eived	by:	S	8	عب	?LD~_		****		Date	<u>ラ</u> タ	511	Time: 0430
							\mathcal{O}) (· · · · · · · · · · · · · · · · · · ·

			~			Δ				\\ <u></u>	<i></i>	_		
Within holding times Y N	N	Containers are intact	Y) _N	Labels and COC agree	Y)	N	Correct volume and container ($\langle \gamma \rangle$	N	Ice remaining (N	Temperature on receipt 45°C
												K	Ju	e_



Environmental Laboratory Services

600 South Wagner Rd. Ann Arbor, MI 48103-9019 Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

Page 3 of 3

Company Pall Corpi Name Susan E. D. Refers	Requested Turnaround: Standard * 4 business days * 3 business days 48 hours * 24 hours * ASAP / Same day
Street 600 South Wagner Rd B129#9 City Ann Arbor state M1 Zip 48703	Project Name / Number:Print Sampler Name:
Phone <u>734-913-6531</u> Fax <u>734-913-6103</u>	Invoice To:
Email	

			W	ater	Mat	trix	of	1		Pr	eser	vatio	n		
Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Drinking	Ground	Waste	Other	Number of Containers	Requested Testing Bromate	None	4 ° C	HCI	HNO3	H ₂ SO ₄	Other	Lab ID
1 Outtall	10/16/11	composit				~	١	FIE		V					2537361
2 Outfall	10/17/11	composite				~	l	JH							362
3 Out Fee!	10/18/11	composite.				V	ł	Яб		V					1138
4 OutFall	10/19/11	composite				1	l	PE		7					364
5 Outfall	10/50/11	Composite				/	ĺ	317		V					865
6 HO HR Separate Botch	10/24/11	08:52				V	ι	317		1					
7 Gutfall	10/23/11	composite				レ	1	317		2	,				- ABB
8	<i>f</i>	:												*****	
9	1 1	. ,													
10	1 1	:													
Released by Samplers Sonn Campbell	Date: / /	Time: :		eived	-		-			·		Date:	1	1	Time: :
Released by Suscess EORo Hew	Date 10 94 11	Time: :	Red	eived	by	,	عرو	>n				Date:	10/2	611	Time: 04:30
		<u> </u>				<u></u>))								

Within holding times	Υ	N	Containers are intact (\mathbb{Y}	N	Labels and COC agree	\overline{Y}	N	Correct volume and container	Y	N Ice remaining (A) N Temperature on receipt 4.200	<u>-</u>
							~		**************************************		Siem Provido Aguera Containa	_

LABORATORY REPORT

This report contains _____pages (including the cover page)

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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Laboratory Report

Client:

Pall Life Sciences

Report:

270469

Attn:

John Campbell

Priority:

Standard Written

600 South Wagner Road Ann Arbor, MI 48103 Status:

Final

PWS ID:

Not Supplied

Copies

to: L

Laurel Beyer

	Sample Information													
UL ID#	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time									
2537340	HC/HR	317.0	10/05/11 08:30	Client	10/25/11 09:30									
2537341	HC/HR	317.0	10/06/11 09:35	Client	10/25/11 09:30									
2537342	HC/HR	317.0	10/07/11 08:10	Client	10/25/11 09:30									
2537343	HC/HR	317.0	10/11/11 08:50	Client	10/25/11 09:30									
2537344	HC/HR	317.0	10/12/11 08:20	Client	10/25/11 09:30									
2537345	HC/HR	317.0	10/13/11 08:10	Client	10/25/11 09:30									
2537346	HC/HR	317.0	10/14/11 08:25	Client	10/25/11 09:30									
2537347	HC/HR	317.0	10/17/11 09:20	Client	10/25/11 09:30									
2537348	HC/HR	317.0	10/18/11 08:35	Client	10/25/11 09:30									
2537349	HC/HR	317.0	10/19/11 08:10	Client	10/25/11 09:30									
2537350	HC/HR	317.0	10/20/11 08:40	Client	10/25/11 09:30									
2537351	HC/HR	317.0	10/21/11 08:35	Client	10/25/11 09:30									
2537352	HC/HR	317.0	10/24/11 08:25	Client	10/25/11 09:30									

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 Traci Chlebowski at (574) 233-4777.

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Authorized Signature

Title

Data

Client Name:

Pall Life Sciences

Chlebow Br

Report #:

270469

Page 1 of 5

Report #: 270469

Sampling Point: HC/HR

PWS ID: Not Supplied

			Gene	ral Che	emistry_				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		10/28/11 18:10	2537340

Sampling Point: HC/HR

PWS ID: Not Supplied

	General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL. ID#		
15541-45-4	Bromale	317.0	10 *	1.0	< 1.0	ug/L		10/28/11 18:33	2537341		

Sampling Point: HC/HR

PWS ID: Not Supplied

	General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#		
3	Bromate	317.0	10 *	1.0	< 1.0	ug/L			2537342		

Sampling Point: HC/HR

PWS ID: Not Supplied

0.200	General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#		
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	•••	10/28/11 19:19	2537343		

Sampling Point: HC/HR

PWS ID: Not Supplied

100 - 100 julija (100 julija (General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#		
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	***	10/28/11 19:42	2537344		

Report #: 270469

Sampling Point: HC/HR

PWS ID: Not Supplied

	General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#		
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/l.		10/28/11 20:05	2537345		

Sampling Point: HC/HR

PWS ID: Not Supplied

	General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#		
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	•••	11/04/11 09:22	2537346		

Sampling Point: HC/HR

PWS ID: Not Supplied

	General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#		
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L			2537347		

Sampling Point: HC/HR

PWS ID: Not Supplied

			Gene	ral-Ch	emistry				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	alithe of shelphol Martini Code and President Code and Statement Code	11/04/11 10:54	2537348

Sampling Point: HC/HR

PWS ID: Not Supplied

General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#	
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L			2537349	

Client Name:

Pall Life Sciences

Report #: 270469

Sampling Point: HC/HR

PWS ID: Not Supplied

			Gene	ral Ch	emistry:				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		11/04/11 11:40	2537350

Sampling Point: HC/HR

PWS ID: Not Supplied

	General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#		
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		11/04/11 12:03			

Sampling Point: HC/HR

PWS ID: Not Supplied

General Chemistry										
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#	
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		11/04/11 12:26		

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

And the second control of the second control	giral di di di di mana di mana mana mana di ma	уни в положения на принципа и навида на принципа на принципа на принципа на принципа на принципа на принципа н	par na antigen e man e antigen na agrana e e antigen de la companya de la companya de la companya de la companya
Reg Limit Type:	MCL	SMCL	AL
Symbol:	#	A CONTRACTOR OF THE PROPERTY O	!

Client Name: Pall Life Sciences Report #: 270469

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.

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.

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) - 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 LTB container follows the collection bottles to and from the collection site, but the LTB is not opened at any time during the trip. LTB is not exposed to site conditions or pumping and collection equipment. The LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Matrix Duplicate (LFD) - is a sample aliquot 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.

Matrix Spike Sample (MS) / Laboratory Fortified Matrix (LFM) - 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.

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.

Run Number: 162198 PC File Name: 110111B Order Number: 214889

Instrument: IC DP Analyst: J. Timm Receipt Batch: 270469 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/08/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2541674 Extracted: N/A

Type: Laboratory Reagent Blank Analyzed: 10/28/2011 07:50

Dil Factor: 1.000

Amount

0.9453

1.0 0.0000

CAS Number Parameter 15541-45-4 Bromate

MRL

Report Units

Sample ID: 2541675 Extracted: N/A

Type: Instrument Performance Check

Analyzed: 10/28/2011 08:13

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Target ----1.0

Amount % Rec Limits

< 1.0 ug/L

Sample ID: 2541676 Extracted: N/A

Type: Laboratory Fortified Blank

Dil Factor: 1.000

95

CAS Number Parameter 15541-45-4 Bromate

Analyzed: 10/28/2011 08:36 Target

% Rec Limits Amount

5.0 4.3761 88 85-115 Pass

75-125 Pass

85-115 Pass

Sample ID: 2541677 Extracted: N/A

Type: Continuing Calibration Check

Analyzed: 10/28/2011 15:29

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

10.0

Site: HC/HR

Sample ID: 2537340 Type: Field Sample Extracted: N/A

Analyzed: 10/28/2011 18:10

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Amount 1.0

Target Amount

9.1884 92

Report Units 0.6730 < 1.0 ug/L

Sample ID: 2537341 Extracted: N/A

Type: Field Sample Analyzed: 10/28/2011 18:33

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

Report Units

15541-45-4 Bromate

Amount ----1.0

Amount mopore 0.5326

< 1.0 ug/L

Sample ID: 2537342 Extracted: N/A

Type: Field Sample Analyzed: 10/28/2011 18:56 Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

Report Units

1.0

0.5053 < 1.0 ug/L

15541-45-4 Bromate

Sample ID: 2537343

Type: Field Sample

Site: HC/HR Dil Factor: 1.000

Extracted: N/A

Analyzed: 10/28/2011 19:19

CAS Number Parameter 15541-45-4 Bromate

Amount

Amount Report Units 0.4353 < 1.0 ug/L

Sample ID: 2537344 Extracted: N/A

Type: Field Sample Analyzed: 10/28/2011 19:42 Site: HC/HR

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Amount ---------1.0 0.4540 < 1.0 ug/L

1.0

Report Units

Run Number: 162198 PC File Name: 110111B Order Number: 214889 Instrument: IC DP Analyst: J. Timm Receipt Batch: 270469 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/08/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2537345 Extracted: N/A Type: Field Sample

Analyzed: 10/28/2011 20:05

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter MRL Amount Report Units
15541-45-4 Bromate 1.0 0.4903 < 1.0 ug/L

Sample ID: 2541678 Extracted: N/A

Type: Continuing Calibration Check

Analyzed: 10/28/2011 20:28

Dil Factor: 1.000

CAS Number	Parameter	Target	Amount	% Rec	Limits	P/F
	***********	-				
15541-45-4	Bromate	15.0	13.5006	90	85-115	Pass

Run Number: 162281 PC File Name: 110411A Order Number: 214889

Instrument: IC DP Analyst: J. Timm Receipt Batch: 270469 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/08/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2538328 Extracted: N/A

Type: Laboratory Reagent Blank Analyzed: 11/04/2011 08:14

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

MRL Amount 1.0 0.0000 < 1.0 ug/L

Report Units

Type: Instrument Performance Check

Sample ID: 2538329 Extracted: N/A

Analyzed: 11/04/2011 08:37

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

____ 1.0

Amount % Rec Limits

P/F 75-125 Pass

Sample ID: 2538330 Extracted: N/A

Type: Laboratory Fortified Blank

Dil Factor: 1.000

Analyzed: 11/04/2011 09:00

Amount % Rec Limits Target CAS Number Parameter ______ 5.0 5.3515 107 85-115 Pass 15541-45-4 Bromate

> MRL ----

1.0

Sample ID: 2537346

Type: Field Sample

Site: HC/HR Dil Factor: 1.000

Extracted: N/A

Analyzed: 11/04/2011 09:22

Amount Report Units

0.7724 < 1.0 ug/L

1.2004 120

CAS Number Parameter 15541-45-4 Bromate

 Sample ID: 2541687
 Type: Matrix Spike of 2537346
 Site: HC/HR

 Extracted: N/A
 Analyzed: 11/04/2011 09:45
 Dil Factor: 1.000

CAS Number Parameter

Amount Parent Amt Target

%Rec Limits P/F

5.0 5.2131 < MRL 104 75-125 Pass 15541-45-4 Bromate

Sample ID: 2541688 Extracted: N/A

Type: Matrix Spike Duplicate of 2537346 Site: HC/HR

Analyzed: 11/04/2011 10:08

Dil Factor: 1.000

CAS Number Parameter

Target

15541-45-4 Bromate

Amount Parent Amt %Rec Limits P/F ----5.0

5.1293 < MRL 103 75-125 Pass

Sample ID: 2537347 Extracted: N/A

Type: Field Sample Analyzed: 11/04/2011 10:31 Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

MRL

Amount Report Units _____

15541-45-4 Bromate

Type: Field Sample

Sample ID: 2537348 Extracted: N/A

Analyzed: 11/04/2011 10:54 Site: HC/HR
Dil Factor: 1.000

1.0

CAS Number Parameter

MRL ----

Amount Report Unit Report Units

Site: HC/HR

0.9402 < 1.0 ug/L

15541-45-4 Bromate

1.0

0.7344 < 1.0 ug/L

Sample ID: 2537349 Extracted: N/A

Type: Field Sample Analyzed: 11/04/2011 11:17

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

Amount

Report Units

______ 15541-45-4 Bromate

----1.0 0.9897 < 1.0 ug/L

Run Number: 162281 PC File Name: 110411A Order Number: 214889

Instrument: IC DP Analyst: J. Timm Receipt Batch: 270469 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/08/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2537350 Extracted: N/A

Type: Field Sample Analyzed: 11/04/2011 11:40

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter _____ 15541-45-4 Bromate

MRL

Amount Report Units

Sample ID: 2537351

Type: Field Sample

0.5714 < 1.0 ug/L

Extracted: N/A

Analyzed: 11/04/2011 12:03

Amount

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

MRL

Report Units

15541-45-4 Bromate

____ 1.0

MRL

1.0

0.7044

< 1.0 ug/L

Sample ID: 2537352 Extracted: N/A

Type: Field Sample

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

Analyzed: 11/04/2011 12:26

Amount

Report Units

% Rec Limits

15541-45-4 Bromate

----______ 1.0

0.8624 < 1.0 ug/L

Sample ID: 2535634 Extracted: N/A

Type: Continuing Calibration Check Analyzed: 11/04/2011 14:44

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Target Amount -----10.0

100 9.9942

----85-115 Pass



Pall Corporation

Environmental Laboratory Services

600 South Wagner Rd. Ann Arbor, MI 48103-9019 Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

276469

Page 1 of 3

Company Pall Corp, Name Susan E.O. Peters Street 600 South Wagner Road Building 4 City Ann Arbor State Mi Zip 48103 Phone Ann Arbor Fax 734-913-6103	Requested Turnaround: Standard * 4 business days * 3 business days 48 hours * 24 hours * ASAP / Same day Project Name / Number: Print Sampler Name: Invoice To:
Email 734-913-6531	

	į.		W:	ater	Mat	rix	of rs			Pr	ese	rvati	OU			
Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Drinking	Ground	Waste	Other	Number of Containers	Requested Testing Bromate	None	4 ° C	HCI	HNO ₃	H ₂ SO ₄	Other	La	ab ID
1 HCHR	10/05/11	05:30				1/	1	317		1					250	37340
2 HC HR	10/06/11	09 :35				✓	ı	317		V						341
3 HC HR	10/07/11	08:10				V	١	ろけ		√						347
4 HC HR	10/11/11	08:50				V	1	317		~				*****	261.0	343
5 HC/HR	10/12/11	୦୪: ୫୦				V	Î	317		~						344
6 HCHR	10/13/11	0810		- Commercial Commercia		V	Ì	317		√					ege kee	345
7 HCHR	10/14/11	08:25				V	1	317		V					175 (3) (1 25 (2)	346
8 HCHR	10/17/11	૦૧ ૨૦				V	1	317		V					18 G	347
9 HC HR	10/18/11	08:35				1	1	317		/					Cocurs di La Cara	348
10 HCHR	10/19/11	08:10				V	1	317		/	/				7	<i>/</i>
Released by Sampler: J. Carriphaell,	Date: / /	Time: :	Rec	eived I	by:				l			Date	i. 1	/	Time:	
Released by: Bewen ED Peters	Date to A4 11	Time: :	Rec	eived l	by:	5		222				Date	108	511	Time:	09:30

			·				_		· · · · · · · · · · · · · · · · · · ·	<u> </u>	۷.			1
Within holding times	Υ	N	Containers are intact (Υ)	N	Labels and COC agree (Y	\mathcal{I}_{I}	V	Correct volume and container	P	/N	Ice remaining (Ý) 1	N Temperature on receipt 4.2c
						<u> </u>			h.,				21,	



Pall Corporation

Environmental Laboratory Services

600 South Wagner Rd. Ann Arbor, MI 48103-9019 Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

Company)	Requested Turnaround:	Standard *	4 business days	* 3 business days
Name	Susan E.D. Peters			48 hours *	24 hours	* ASAP / Same day
Street	600 South Wagner Rd. Bldg#4		Project Name / Number:			
City	Ann Arlan state Mi zip 48103		Print Sampler Name:			
Phone	734-913-653 Fax 734-913-6103		Invoice To:			
Email)				

			W	ater	Mat	rix	of rs		Preservation						
Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Drinking	Ground	Waste	Other	Number of Containers	Requested Testing Bromate	None	4 ° C	HCI	HNO ₃	H ₂ SO ₄	Other	Lab ID
1 HC/HR	10/20/11	08:40				~	í	317		~					2637 350
2 HC/HR	10/21/11	OS:35				~	1	317		V					V 351
3 Outfall	10/04/11	composite				~	1	34		V					Jan
4 Outfall	10/05/11	composite				V	1	317		~					1985 - 1937 - 1930-1931 - 1932-1933 - 1933 1933 - 1933 1933 - 1933
5 Outfall	10,00111	composite				1/	ì	317		1					garan da
6 Outfall &x	10 /09/11	composite				V	ì	317		1					ego est escentista de la composición del composición de la composición del composición de la composici
7 Outfall Sofu		composite				N	i	3H		1					
8 Outfall &	10/11/11	Camposite				1	1	317		1					Alder of the control of the con-
9 Outtell P	10/12/11	COMBORIGE				~	1	317		1					4,716.6
10 Outtall	10/13/11	composite				1	4	317	-	/					
Released by Sampler: Sohn Campbell	Date: / · /	Time: :	Rec	eived	by:		***************************************			<u> </u>		Date	: /	1	Time: :
Released by Slam EOR Lew	Date:10 64/11	Time: :	Rec	eived	by:	S	Que	200				Date	D &	5/11	Time: 0930
		^					0,0	7							,

The second secon		\sim			\sim			/			_	/ -
Within holding times Y N	 Containers are intact	Y	N	Labels and COC agree	Y)) _N	Correct volume and container (Y	N	Ice remaining) N	Temperature on receipt 400°C
-	•										3/L	LC_

214	889
22 I L	$\omega \omega$.

PALL Pall Corporation

Environmental Laboratory Services

600 South Wagner Rd. Ann Arbor, MI 48103-9019 Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

Page 3 of 3

Name Street City	Pall Corpi Susan E. D. Peters 600 South Wagner Rd B129#4 Ann Arbor State M1 Zip 48703 734-913-6531 Fax 734-913-6103	Requested Turnard Project Name / Num Print Sampler Nam Invoice To:	ımber: _	Standard * 48 hours *	•	* 3 business days * ASAP / Same day	
Email	181 10 0 0 0 1 1 1 1 1 0 1 0 1 0 1 0 1 0	invoice to:					/

			W	ater	Mat	rix	of rs			Presei		eservation			
Sample Identification or Location	Sample	Sample	ğ					Requested							Lab ID
(This will appear on the final report)	Date	Time	Drinking	Ground	Waste	jer		Testing	e e	ပ		ဝိ	Q Q	er	Lab ID
			Q	Gre	Wa	Other	S	Bromate	None	4 0	HCI	HNO	H ₂ SO ₄	Other	
1 Outfall xx	10/16/11	composite				~	1	FIS		~					
2 Outsall 2007	ライナーハ	composite				~	١	JH_		\					Andrew State
000000000000000000000000000000000000000	10/18/11	composite				V	t	ПE		V					を の の の の の の の の の の の の の
4 OxetFall	10/19/11	composite				V	i	PE		V					agla se i September 1910
5 Outrall	10/20/11	Composite				/	i	317		V					
62 HC/HR	10/24/11	08:35				V	Į	317		1				J.F	351 352
7 Outrall	10/23/11	composite				~	١	317		ン					(0.15) (3.15) (4.15)
8 70,000	7	:													
9 24 80	1 1					· · · · · · · · · · · · · · · · · · ·									
10	1 1						——————————————————————————————————————			/					
Released by Sampler Sonn Campbell	Date: / /	Time: :	į	eived	-				<u> </u>			Date	: /	1	Time: :
Released by School EORS Selection	Date: 0 / 34/ 11	Time: :	Rec	eived	by:	Z.	215	>~				Date	10 8	611	Time: 19:30

Within holding times Y N	Containers are intact (Y	N Labels and COC agree	y)	N Correct volume and container	Y	N Ice remaining	0	N	Temperature on receipt 4.2°C
						与正型设置的 關係	j /	3/2	Myster kingsagabhas

LABORATORY REPORT

This report contains ____ pages (including the cover page)

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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Laboratory Report

Client:

Pall Life Sciences

Report:

270809

Attn:

John Campbell

Priority:

Standard Written

600 South Wagner Road

Status:

Final

Ann Arbor, MI 48103

PWS ID:

Not Supplied

Copies

to:

Laurel Beyer

Sample Information							
UL ID#	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time		
2541278	HC/HR	317.0	10/25/11 08:30	Client	11/02/11 09:00		
2541279	HC/HR	317.0	10/26/11 08:25	Client	11/02/11 09:00		
2541280	HC/HR	317.0	10/27/11 08:55	Client	11/02/11 09:00		
2541281	HC/HR	317.0	10/28/11 08:35	Client	11/02/11 09:00		
2541282	HC/HR	317.0	10/31/11 08:55	Client	11/02/11 09:00		

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 Traci Chlebowski at (574) 233-4777.

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Pall Life Sciences

Chlemush

Client Name: Report #:

270809

Page 1 of 3

11-08-2011

Report #: 270809

Sampling Point: HC/HR

PWS ID: Not Supplied

			Gene	ral Gho	emistry				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		11/05/11 00:42	2541278

Sampling Point: HC/HR

PWS ID: Not Supplied

			Gene	ral Ch	emistry				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L.		11/05/11 01:05	2541279

Sampling Point: HC/HR

PWS ID: Not Supplied

	General Chemistry								
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		11/05/11 01:28	2541280

Sampling Point: HC/HR

PWS ID: Not Supplied

			Gene	ral Ch	emistry		Calaba de la companya		
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		11/05/11 01:51	36

Sampling Point: HC/HR

PWS ID: Not Supplied

			Gene	ral Ch	emistry				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L	• • • •	11/05/11 02:14	2541282

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

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4	Reg Limit Type:	MCL	SMCL.	AL
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1	Symbol:	*	٨	!

Client Name: Pall Life Sciences Report #: 270809

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.

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.

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) - 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 LTB container follows the collection bottles to and from the collection site, but the LTB is not opened at any time during the trip. LTB is not exposed to site conditions or pumping and collection equipment. The LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Matrix Duplicate (LFD) - is a sample aliquot 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.

Matrix Spike Sample (MS) / Laboratory Fortified Matrix (LFM) - 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.

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.

Run Number: 162283 PC File Name: 110411B Order Number: 215106

Instrument: IC DP Analyst: J. Timm Receipt Batch: 270809 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/07/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2541662 Extracted: N/A

Type: Laboratory Reagent Blank Analyzed: 11/04/2011 20:29

Dil Factor: 1.000

0.0000 < 1.0 ug/L

CAS Number Parameter 15541-45-4 Bromate

Report Units

Type: Instrument Performance Check

1.0

Amount

Sample ID: 2541663 Extracted: N/A

Analyzed: 11/04/2011 20:52

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Target Amount % Rec Limits _----1.0

1.0195 102 75-125 Page

Sample ID: 2541664 Extracted: N/A

Type: Laboratory Fortified Blank

Analyzed: 11/04/2011 21:15

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

5.0

4.5029 90 85-115 Pass

Sample ID: 2541278 Extracted: N/A

Type: Field Sample Analyzed: 11/05/2011 00:42

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

Amount Report Unit

Amount

0.6596

Report Units

% Rec Limits

15541-45-4 Bromate

0.7824 1.0

< 1.0 ug/L

Report Units

Sample ID: 2541279 Type: Field Sample Extracted: N/A

MRL

MRL

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

Type: Field Sample Analyzed: 11/05/2011 01:05

Amount

15541-45-4 Bromate

0.6597 < 1.0 ug/L

Sample ID: 2541280 Extracted: N/A

Type: Field Sample Analyzed: 11/05/2011 01:28 Site: HC/HR

CAS Number Parameter

Dil Factor: 1.000

15541-45-4 Bromate

MRL 1.0

Report Units ______

Amount Report Units

< 1.0 ug/L

Sample ID: 2541281 Extracted: N/A

Type: Field Sample

Analyzed: 11/05/2011 01:51

Site: HC/HR Dil Factor: 1.000

CAS Number Parameter

MRL

------______

----1.0 -----

______ 0.7546 < 1.0 ug/L

15541-45-4 Bromate

Type: Field Sample

Sample ID: 2541282 Extracted: N/A

Analyzed: 11/05/2011 02:14

Dil Factor: 1.000

CAS Number Parameter

Site: HC/HR

MRL Amount Report Units

15541-45-4 Bromate

1.0

10.0

0.7401

Amount

< 1.0 ug/L

Sample ID: 2541666

Extracted: N/A

Type: Continuing Calibration Check

Analyzed: 11/05/2011 02:37

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Target _____

_____ 9.3180 93 85-115 Pass

% Rec Limits

NOTE: The dilution factor is included in the percent recovery calculation. Page 1 of 1

Version 2.7.0.0

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20			



Pall Corporation

Environmental Laboratory Services

Date:

Date: |] / () | / \ \

600 South Wagner Rd. Ann Arbor, MI 48103-9019 Phone: (734)-913-6531 * Fax: (734)-913-6103 Chain of Custody Record

270809

Page _____ of ____

Company	Rall Corporation
Name	Susan E.O.Peters
Street	600 South Wagner Road
City	ANNAIDON State Mi Zip 48103
Phone	734.495 (e) 3 17 Fax 734-913-6103
Email	Sue-Peters@ pallican
Phor	ne: 734-913-6531

1	Requested Turnaround: Standard 4 business days 3 business days	\
\ \ !	48 hours * 24 hours * ASAP / Same day	
	Project Name / Number:	
	Print Sampler Name:	-
	Invoice To: CLAT DDA/INCA	
	VELLI I I VILL	

Water Matrix Preservation Containers Number of Sample Identification or Location Sample Sample Requested Ground Drinking Lab ID Waste (This will appear on the final report) Date Time Other Testing H₂SO₄ None 4 ° C HN03 Bromore HC FIS 10/25/11 05:30 HC/HR 317 2 10/26/ 11 0 5:25° 314 08:55 11 17 SI ON 3 317 08:35 10/287 11 4 08:55 10/31/11 5 composite 10/24/11 6 composite 7 10/25/11 composite 8 10/26/11 10/274 H composite 317 10/30/11 317 10 emposite

		,			
Within holding times Y N	Containers are intact Y N	Labels and COC agree Y N	Correct volume and container Y N	Ice remaining (Y)	Temperature on receipt 5 °C

Time:

Time:

Received by:

Koolie Depries

Received by:

Susen & Oferes

Released by Sampler:

Released by:

Date: (/ 0 1 / 1)

Time:

Time() 9:00



Environmental Laboratory Services

600 South Wagner Rd. Ann Arbor, MI 48103-9019 Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

Compar	y Pall Corporation	
Name	Susan E.O. Peters	
Street	600 South Wagner Road	
City	Ann Arbur state Mi Zip 48103	
Phone	734-913-6531 Fax 734-913-603	
Email	Sue-Peters@Pall.com	

Requested Turnaround:	Standard * 4	business days	3 business days	
	48 hours *	24 hours	* ASAP / Same day	
Project Name / Number:				
Print Sampler Name:	John C.	and B	ob U	
Invoice To:				_
				i

				W	ater	Mat	rix	of irs			Pı	ese	rvati	on		
	Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Drinking	Ground	Waste	Other	Number of Containers	Requested Testing	None	4 ° C	HCI	HNO3	H ₂ SO ₄	Other	Lab ID
1 1	OUTEIL W	10/31/H	composite				<u>ا</u>	١	FIE		1					開き (41 mg) (本) (編集) (42 mg)
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Releas	ed by: Busser 80 Reflers	Date:11 01/11	Time: :	Red	eived	by:	ىنى	u D	trusque				Date	ji 5	۱ (۱	Time;09:00

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Within holding times Y N Containers are intact Y N	Labels and COC agree Y N Correct volume and container Y N Ice remaining (Y) N Temperature on receipt 5°C



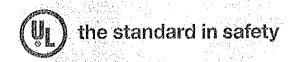
LABORATORY REPORT

This report contains _____ pages. (including the cover page)

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

This report may not be reproduced, except in full, without written approval from Underwriters Laboratories Inc. (UL).

Underwriters Laboratories Inc. 110 S. Hill Street, South Bend, IN 46617-2702 USA T:: 800.332.4345 / F:: 574.233.8207 / W:: ul.com



Underwriters Laboratories

Laboratory Report

Client:

Pall Life Sciences

Report:

270810

Attn:

John Campbell

Priority:

Standard Written

600 South Wagner Road Ann Arbor, MI 48103 Status:

Final

PWS ID:

Not Supplied

Copies

to: Laurel Beyer

	Sampl	e Information			
UL ID#	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
2541283	Outfall	300.1	10/24/11 00:00	Client	11/02/11 09:00
2541283	Outfall	317.0	10/24/11 00:00	Client	11/02/11 09:00
2541284	Outfall	300.1	10/25/11 00:00	Client	11/02/11 09:00
2541284	Oulfall	317.0	10/25/11 00:00	Cllent	11/02/11 09:00
2541285	Outfall	300.1	10/26/11 00:00	Client	11/02/11 09:00
2541285	Outfall	317.0	10/26/11 00:00	Client	11/02/11 09:00
2541286	Outfall	300.1	10/27/11 00:00	Client	11/02/11 09:00
2541286	Oulfall	317.0	10/27/11 00:00	Client	11/02/11 09:00
2541287	Outfall	300.1	10/30/11 00:00	Client	11/02/11 09:00
2541287	Oulfall	317.0	10/30/11 00:00	Client	11/02/11 09:00
2541288	Outfall	300.1	10/31/11 00:00	Client	11/02/11 09:00
2541288	Outfall	317.0	10/31/11 00:00	Client	11/02/11 09:00

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 Traci Chlebowski at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from Underwriters Laboratories (UL).

Authorized Signature

Client Name:

Pall Life Sciences

Report #:

270810

Maxethen Title

11-16-1

Date

Client Name:

Pall Life Sciences

Report #: 270810

Sampling Point: Outfall

PWS ID: Not Supplied

	# General Chemistry									
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL. ID#	
15541-45-4	Bromate	300.1	10 *	5.0	8.2	ug/L		11/14/11 12:50	2541283	
15541-45-4	Bromate	317.0	10 *	1.0	8.0	ug/L		11/04/11 19:20	2541283	

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry									
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#	
15541-45-4	Bromate	300.1	10 *	5.0	9.3	ug/L		11/10/11 12:57		
15541-45-4		317.0	10 *	1.0	8.4	ug/L	The stand received the standard process of the standard standard and the standard st	11/04/11 22:01	2541284	

Sampling Point: Outfall

PWS ID: Not Supplied

	General Chemistry									
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL, ID#	
15541-45-4	Bromate	300.1	10 *	5.0	7.2	ug/L		11/10/11 13:21	2541285	
15541-45-4	Bromate	317.0	10 *	1.0	6.2	ug/L		11/04/11 23:10	2541285	

Sampling Point: Outfall

PWS ID: Not Supplied

100			Gene	ral Ch	mistry	religion of the second			
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL JD#
15541-45-4	Bromate	300.1	10 *	5.0	6,6	ug/L	•••	11/10/11 13:46	
15541-45-4	Bromate	317.0	10 *	1.0	6.5	ug/L		11/04/11 23:33	

Sampling Point: Outfall

PWS ID: Not Supplied

	Général Chemistry									
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#	
15541-45-4	Bromate	300.1	10 *	5.0	6.9	ug/L		11/10/11 14:10		
15541-45-4	Bromate	317.0	10 *	1.0	7.5	ug/L		11/04/11 23:58	2541287	

Report #: 270810

Sampling Point: Outfall

PWS ID: Not Supplied

			Gene	ral Ch	emistry.	41-14-15-15-16-17-1			
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	300.1	10 *	5.0	8.4	ug/L	4	11/10/11 14:35	
15541-45-4	Bromate	317.0	10 *	1.0	7.7	ug/L	***	11/05/11 00:19	

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

•	• -			
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Reg Limit Type:	MCL	SMCL	AL	-
Symbol:	*	۸		į

Pall Life Sciences Report #: 270810

Client Name:

Lab Definitions

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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.

Run Number: 162464 Instrument: IC BK Method(s): 300.1 PC File Name: 111011A Submitted By: S. Lovick Analyst: S. Lovick Receipt Batch: 270810 Order Number: 215106 Today's Date: 11/16/2011 Client: Pall Life Sciences / John Campbell Generated By: A. Chlebowski Sample ID: 2546248 Type: Initial Calibration Blank Extracted: N/A Analyzed: 10/28/2011 21:30 Dil Factor: 1.000 CAS Number Parameter Report Units Amount --------_____ 15541-45-4 Bromate 5.0 0.0100 < 5.0 ug/L 19559-59-2 Dichloroacetate 0.0000 % Recovery N/A Sample ID: 2546253 Type: Laboratory Reagent Blank Analyzed: 11/10/2011 11:43 Dil Factor: 1.000 Extracted: N/A Amount Report Units CAS Number Parameter MRL _______ _______ ____ _____ 15541-45-4 Bromate 19559-59-2 Dichloroacetate 5.0 0.3500 < 5.0 ug/L N/A 1.0600 106 % Recovery Sample ID: 2546254 Type: Laboratory Fortified Blank Dil Factor: 1.000 Extracted: N/A Analyzed: 11/10/2011 12:08 Amount CAS Number Parameter Target % Rec Limits P/F 75-125 15541-45-4 Bromate 20.0 19.7200 99 19559-59-2 Dichloroacetate 1.0400 104 90-115 1.0 Sample ID: 2546255 Type: Instrument Performance Check Extracted: N/A Analyzed: 11/10/2011 12:32 Dil Factor: 1.000 CAS Number Parameter Target Amount % Rec Limits -----4,9100 98 75-125 1,0300 103 90-115 4,9100 1.0300 15541-45-4 Bromate 5.0 Pass Pass 19559-59-2 Dichloroacetate 1.0 Sample ID: 2541284 Type: Field Sample Site: Outfall Extracted: N/A Analyzed: 11/10/2011 12:57 Dil Factor: 1.000 MRL Report Units CAS Number Parameter Amount 9,3000 9.3 ug/L 1.0100 101 % Recovery ---------15541-45-4 Bromate 19559-59-2 Dichloroacetate 5.0 N/A Site: Outfall Sample ID: 2541285 Type: Field Sample Analyzed: 11/10/2011 13:21 Extracted: N/A Dil Factor: 1.000 Report Units CAS Number Parameter MRL Amount _____ ----7.2400 7.2 ug/L 15541-45-4 Bromate 5.0 1,0700 19559-59-2 Dichloroacetate N/A 107 % Recovery Sample ID: 2541286 Type: Field Sample Site: Outfall Extracted: N/A Analyzed: 11/10/2011 13:46 Dil Factor: 1.000

CAS Number Parameter

19559-59-2 Dichloroacetate

15541-45-4 Bromate

Sample ID: 2541287

CAS Number Parameter

15541-45-4 Bromate 19559-59-2 Dichloroacetate

Extracted: N/A

Type: Field Sample

Analyzed: 11/10/2011 14:10

MRI.

5.0

N/A

MRL

5.0

N/A

Amount

6.5700 6.6 ug/L 1.0300 102 0

Site: Outfall

6.8900 6.9 ug/L 1.0500 105 % Recov

Dil Factor: 1.000

Amount Report Units

Report Units

103 % Recovery

105 % Recovery

Run Number: 162464 PC File Name: 111011A Order Number: 215106 Instrument: IC BK Analyst: S. Lovick Receipt Batch: 270810

Method(s): 300.1 Submitted By: S. Lovick Today's Date: 11/16/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2541288 Extracted: N/A

Type: Field Sample Analyzed: 11/10/2011 14:35

Site: Outfall Dil Factor: 1.000

CAS Number Parameter	MRL	Amount	Report	Units
15541-45-4 Bromate 19559-59-2 Dichloroacetate	5.0 N/A	8.4200 1.0100		ug/L % Recovery

Sample ID: 2540405 Extracted: N/A

Type: Continuing Calibration Check Analyzed: 11/10/2011 14:59

Dil Factor: 1.000

Target	Amount	% Rec	Limits	P/P
25.0	25.6700	103	75-125	Pass
1,0	1.0100	101	90-115	Pass
		25.0 25.6700	25.0 25.6700 103	25.0 25.6700 103 75-125

Run Number: 162576 PC File Name: 111411A Order Number: 215106 Instrument: IC BK Analyst: S. Lovick Receipt Batch: 270810 Method(s): 300.1 Submitted By: S. Lovick Today's Date: 11/16/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Client: Pail Lite Sciences / J	onn Campbell		Generated E	sy: A. Cnier	OWSK1			
Sample ID: 2547695 Extracted: N/A	Type: Initial Calibration Blank Analyzed: 10/28/2011 21:30		Dil Factor:	1.000				
CAS Number Parameter	MRL			Units				
15541-45-4 Bromate 19559-59-2 Dichloroacetate	5.0 N/A	0.0000		% Recove				
Sample ID: 2547701 Extracted: N/A	Type: Laboratory Reagent Blank Analyzed: 11/14/2011 11:36	:	Dil Factor:	1.000				
CAS Number Parameter	MRL	Amount	Report					
15541-45-4 Bromate 19559-59-2 Dichloroacetate	5.0 N/A	0.0000 1.0700	< 5	< 5.0 ug/L 107 % Recovery				
Sample ID: 2547702 Extracted: N/A	Type: Laboratory Fortified Blank Analyzed: 11/14/2011 12:01	Ī	Dil Factor:	1.000				
CAS Number Parameter	Target	Amount		Limits	P/F			
15541-45-4 Bromate 19559-59-2 Dichloroacetate	20.0	21.320		75-125	Pass Pass			
Sample ID: 2547703 Extracted: N/A	Type: Instrument Performance Chec Analyzed: 11/14/2011 12:25		Dil Factor:	1.000				
CAS Number Parameter	Target	Amount		Limits	P/F			
15541-45-4 Bromate 19559-59-2 Dichloroacetate	5.0 1.0	4,500 1,020	0 90	75-125 90-115	Pass Pass			
Sample ID: 2541283 Extracted: N/A	Type: Field Sample Analyzed: 11/14/2011 12:50		Site: Outfa Dil Factor:					
CAS Number Parameter	MRL	Amount		Units				
15541-45-4 Bromate 19559-59-2 Dichloroacetate	5.0 N/A	8.2500 1.0400	.2 ug/L 04 % Recove	•				
Sample ID: 2547704 Extracted: N/A	Type: Continuing Calibration Chec Analyzed: 11/14/2011 14:28		Dil Factor:	1.000				
		_						

Target

25.0

1.0

Amount

24.4300

1,0100

% Rec

98

101

Limits

75-125

90-115

P/F

Pass

Pass

CAS Number Parameter

19559-59-2 Dichloroacetate

15541-45-4 Bromate

Run Number: 162281 PC File Name: 110411A Order Number: 215106 Instrument: IC DP Analyst: J. Timm Receipt Batch: 270810 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/07/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2538328 Extracted: N/A Type: Laboratory Reagent Blank Analyzed: 11/04/2011 08:14

Dil Factor: 1.000

CAS Number Parameter

MRL 1.0

Amount R

Report Units

15541-45-4 Bromate

Type: Instrument Performance Check

Dil Factor: 1.000

Sample ID: 2538329 Extracted: N/A

CAS Number Parameter

15541-45-4 Bromate

Analyzed: 11/04/2011 08:37

Target Amount % Rec Limits P/F

1.0 1.2004 120 75-125 Pass

Sample ID: 2538330 Extracted: N/A Type: Laboratory Fortified Blank

Analyzed: 11/04/2011 09:00

Dil Factor: 1.000

CAS Number Parameter Target Amount % Rec Limits P/P

15541-45-4 Bromate 5.0 5.3515 107 85-115 Pass

Sample ID: 2535634 Extracted: N/A

Type: Continuing Calibration Check

Analyzed: 11/04/2011 14:44

Dil Factor: 1.000

CAS Number Parameter Target Amount % Rec Limits P/P

15541-45-4 Bromate 10.0 9.9942 100 85-115 Pass

Sample ID: 2541283 Extracted: N/A Type: Field Sample

Analyzed: 11/04/2011 19:20

Site: Outfall Dil Factor: 1.000

CAS Number Parameter MRL Amount Report Units

15541-45-4 Bromate 1.0 7.9993 8.0 ug/L

Sample ID: 2541615 Extracted: N/A

Type: Continuing Calibration Check

Analyzed: 11/04/2011 20:06

Dil Factor: 1.000

 CAS Number
 Parameter
 Target
 Amount
 % Rec
 Limits
 P/F

 15541-45-4
 Bromate
 15.0
 14.4841
 97
 85-115
 Pass

----1.0

1.0

Run Number: 162283 PC File Name: 110411B Order Number: 215106 Instrument: IC DP Analyst: J. Timm Receipt Batch: 270810 Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/07/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2541662 Extracted: N/A

Type: Laboratory Reagent Blank Analyzed: 11/04/2011 20:29

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

MRL Amount Report Units

Sample ID: 2541663 Extracted: N/A

Type: Instrument Performance Check

Dil Factor: 1.000

CAS Number Parameter SECAL AC A Second

Analyzed: 11/04/2011 20:52

Amount P/F Target % Rec Limits

0.0000 < 1.0 ug/L

15541-45-4 Bromate

Type: Laboratory Fortified Blank

Dil Factor: 1.000

1.0195 102 75-125 Pass

Sample ID: 2541664 Extracted: N/A CAS Number Parameter

Analyzed: 11/04/2011 21:15

Amount % Rec Limits Target

15541-45-4 Bromate

4.5029 90 85-115 Pass

Sample ID: 2541284 Extracted: N/A

Type: Field Sample Analyzed: 11/04/2011 22:01

Site: Outfall Dil Factor: 3.000

CAS Number Parameter

MRL

Amount Report Units

15541-45-4 Bromate

____ 1.0

8.3616 8.4 ug/L

Sample ID: 2543427 Extracted: N/A

Type: Matrix Spike of 2541284 Analyzed: 11/04/2011 22:24

Site: Outfall

Dil Factor: 3.000

CAS Number Parameter

Target

Amount Parent Amt %Rec Limits P/F

15541-45-4 Bromate

5.0

5.0

23.1441 8.3616 99 75-125 Pass

Sample ID: 2543428 Extracted: N/A

Type: Matrix Spike Duplicate of 2541284 Site: Outfall Dil Factor: 3.000 Analyzed: 11/04/2011 22:47

CAS Number Parameter

Target

Amount Parent Amt %Rec Limits P/F

22,7700 8.3616 96 75-125 Pass

15541-45-4 Bromate

Site: Outfall

Sample ID: 2541285 Extracted: N/A

Analyzed: 11/04/2011 23:10

Dil Factor: 3.000

CAS Number Parameter

15541-45-4 Bromate

1.0

Amount Report Units
6.1797 6.2 ug/L

Sample ID: 2541286

Type: Field Sample

Type: Field Sample

Site: Outfall

Extracted: N/A

Analyzed: 11/04/2011 23:33

Dil Factor: 3.000

CAS Number Parameter

MRL

15541-45-4 Bromate

1.0

Amount Report Units
6.4980 6.5 ug/L

Sample ID: 2541287

Type: Field Sample

Amount

Site: Outfall

Extracted: N/A

Analyzed: 11/04/2011 23:56

Dil Factor: 3.000

CAS Number Parameter

MRL

Amount Report Units
7.4661 7.5 ug/L

15541-45-4 Bromate

1.0

Run Number: 162283 PC File Name: 110411B Order Number: 215106

Instrument: IC DP Analyst: J. Timm Receipt Batch: 270810

Method(s): 317.0 Submitted By: J. Timm Today's Date: 11/07/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2541288 Extracted: N/A

Type: Field Sample Analyzed: 11/05/2011 00:19

Site: Outfall Dil Factor: 3.000

CAS Number Parameter 15541-45-4 Bromate

MRL

1.0

Target

10.0

Amount

7.6536

9.3180

Sample ID: 2541666 Extracted: N/A

Type: Continuing Calibration Check

Dil Factor: 1.000

CAS Number Parameter

15541-45-4 Bromate

Analyzed: 11/05/2011 02:37

Amount % Rec Limits

Report Units

7.7 ug/L

85-115 Pass

PALL Pall Corporation

Environmental Laboratory Services600 South Wagner Rd. Ann Arbor, MI 48103-9019
Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

276810

Page ____ of ___

Company	Pall Curpuration	
Name	Susan E.O. Peters	
Street	600 South Wagner Road	
City	Annarbon State Mi Zip 48103	
Phone	734-495(653) + Fax 434-913-6103	
Email ,	Sue-Petous @ pallican	/
Phor	ne: 734-913-6531	

Requested Turnaround:	Standard	4 bu	siness day	s 3 business days	1
	48 hours	*	24 hours	* ASAP / Same day	
Project Name / Number:			····		
Print Sampler Name:					
Invoice To:				Inch I	
\ <u></u>	a haileal		TILLY		1

SAMPLE CONTAINE

			W	ater	Mat	rîx	of rs		T	Pr	esei	rvati	ion		
Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Drinking	Ground	Waste	Other	Number of Containers	Requested Testing Foremark SIT	None	4 ° C	HCI	HNO3	H ₂ SO ₄	Other	Lab ID
1 HC/HR	10/25/11	05:30				~	١	317		✓					
2 HOLHR DON	10/26/11	0 8:25				~	l	317		V					
13 HC/11/2 & 20	10127111	08:22				V	J	317		~					
4 HETTER	10/287 11	08:35				V	١	217		1					
5 AC/HR	11/18/01	08:22				~	1	315 €		.1					
6 outall	10/84/11	composite				~	1	3 15*		5					2541095
7 Outfall	10/25/11	composite				~	1	3175		/					700
8 Outfall	10/26/11	cum posite				1	,	35-15	4	~	····				S 10 0 0 Z
9 Outfall	10127 N	composite				~	1	317	—	√					206
10 Outfall	10130111	euniposite				V	1	317		1					1/281
Released by Sampler: Kuck Clind TC:	Date: / /	Time: :	Rec	eived	ph:@	كروم	Ser W	e of ex	رم		1	Date	e:ij /	91/1	
Released by: Suscess SOPULLO	Date:]] / O [/] \	Time: :	Rec	eived	by:	Lees	Lu D	eprest		-		Date	10	11	Timeo 4:00

		· /\
Within holding times Y N Containers are intact Y	Labels and COC agree Y N Correct volume and container Y N Ico	e remaining (Y) N Temperature on receipt 5 °C



Environmental Laboratory Services

600 South Wagner Rd. Ann Arbor, MI 48103-9019 Phone: (734)-913-6531 * Fax: (734)-913-6103

Chain of Custody Record

215106 Page <u>a</u> of <u>2</u>

Compan	y Pall Corporation	1	Requested Turnaround: Standard * 4 business days 3 business days
Name	Susan E.O. Perels		48 hours * 24 hours * ASAP / Same day
Street	600 South Wagner Road		Project Name / Number:
City	Ann Arbur state Mi Zip 48103		Print Sampler Name: John C., and Bob U
Phone	734-913-6531 Fax 734-913-6003		Invoice To:
Email	Bue-Peters@Pallicom	<i>)</i> (

				W	ater	Mat	rix	of irs			Pı	esei	vatî	on		
	Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Tîme	Drinking	Ground	Waste	Other	Number of Containers	Requested Testing Brometo	None	4 ° C	HCI	HNO3	H ₂ SO ₄	Other	Lab ID
1	Outell	10/31/H	ecomposite				レ	١	हाह		1					2441288
2		1 1	:													
3		1 1	:													
4		1 1	:													
5		1	:													
6		1 1					. 19	1202 K 2 1004320	DDAI	Ø 1 P20		Prop.				
7		1 1	:			5	Joseph Company		PHU		E	D				
8		1 1	:		ę	7 P. E.	ā A			A	AI		:			
9		1 -1	•						UUN							
10		1 1	:						· ·	,	 		-			
Relea	sed by Sampler. C. and B.U.	Date: / /	Time: :	Red	eived	iby: <	Be	سعصد	Kegas		<u>م</u>	<u> </u>	Date	:11 b) 1 /1(Time:
Relea	sed by Sampler. C. and B. U. sed by: Slewan 80 Refler	Date: 11 /01/11	Time: :	Red	eived	by:	عع	ii D	Keg Res				Date		1.	Time:09:00

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in the formation of the first o	Labels and COC agree Y N	Correct volume and container Y	N Ice remaining ()	Y) N Temperature on receipt 5 _ ℃
			1	-)
			 	