

Pall Corporation

Sample Analysis Report

Phone: 734.665.0651 Web: www.pall.com

600 Wagner Road Ann Arbor, MI 48103-9019 US

July, 2011

Analyst Initials: F-F.
Date: 8/18///

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
Extraction Wells						<u> </u>	
C3						V-1	· · · · · · · · · · · · · · · · · · ·
DOLPH-07-11-11-08:34-1	220	1.0					
TW-10-07-11-11-13:49-1	500	1.0			-		
TW-20-07-11-11-13:42-2	750	1.0					
D2							
LB-1-07-11-11-11:15-1	430	1.0					
LB-3-07-11-11-11:12-1	440	1.0					
TW-21-07-11-11-11:45-1	190	1.0					
TW-5-07-11-11-13:20-1	760	1.0					
TW-9-07-11-11-13:55-1	530	1.0					
E	,						
TW-11-07-11-11-13:23-1	98	1,0					
TW-18-07-11-11-08:36-1	270	1.0					
Marshy						.=	
PW-1-07-11-11-08:38-1	800	1.0					
Not Applicable							
SW-COMB-07-11-11-08:32-1	340	1,0					
SW	•		<u> </u>				
TW-22-07-11-11-10:45-1	470	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Commer
TW-8-07-11-11-14:20-1	360	1.0					
Monitoring Wells			<u> </u>				***************************************
C2		···					
MW-26-07-13-11-14:15-1	4	1.0		·	· · · · · · · · · · · · · · · · · · ·		
C3					AND THE PARTY OF T	J	
MW-27-07-13-11-09:15-1	7	1.0					
SW				<u> </u>		<u></u>	1
MW-46-07-13-11-09:50-1	36	· 1.0					
MW-49-07-13-11-08:30-1	2	1.0					
MW-52d-07-13-11-13:15-1	nd	1.0					
MW-52i-07-13-11-13:40-1	nd	1.0					
MW-58d-07-13-11-10:30-1	11	1.0					
Surface Water				the second			***************************************
Not Applicable		······································		•		J	
HC/HR-07-01-11-08:25-1			nd	2.0			
HC/HR-07-05-11-08:30-1		<u> </u>	nd	2.0			
HC/HR-07-06-11-09;45-1			nd	2.0			
HC/HR-07-07-11-10:00-1			nd	2.0			
HC/HR-07-08-11-09:00-1			nd	2.0			
HC/HR-07-11-11-09:35-1			nd	2.0			
HC/HR-07-12-11-08:25-1			nd	2.0			
HC/HR-07-13-11-07:35-1			nd	2.0			
HC/HR-07-14-11-08:25-1			nd	2.0			
HC/HR-07-15-11-08:35-1			nd	2.0			
HC/HR-07-18-11-08:25-1			nd	2.0			

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
HC/HR-07-19-11-08:10-1			nd	2.0			
HC/HR-07-20-11-08:15-1			nd	2.0			
HC/HR-07-21-11-08:25-1		· ·	nd	2.0			
HC/HR-07-22-11-08:10-1			nd	2.0			
HC/HR-07-25-11-09:35-1			nd	2.0			
HC/HR-07-26-11-08:10-1			nd	2.0	-		
HC/HR-07-27-11-08;40-1			nd	2.0			
HC/HR-07-28-11-08:25-1			nd	2.0			
HC/HR-07-29-11-07:50-1			nd	2.0			
Treatment System							
OUTFALL-07-03-11-1	7	1.0					
OUTFALL-07-03-11-			5	5.0			
OUTFALL-07-04-11-1	5	1.0					
OUTFALL-07-04-11-		1	5	5.0			
OUTFALL-07-05-11-1	6	1.0					
OUTFALL-07-05-11-			nd	5.0			
OUTFALL-07-06-11-1	6	1.0					
OUTFALL-07-06-11-			nd	5.0			
OUTFALL-07-07-11-1	6	1.0					
OUTFALL-07-07-11-			nd	5.0			
OUTFALL-07-10-11-1	5	1.0					
OUTFALL-07-10-11-			nd	5.0			
OUTFALL-07-11-11-1			nd	5.0			
OUTFALL-07-11-11-	6	1.0					
OUTFALL-07-12-11-1	5	1.0					
OUTFALL-07-12-11-			nd	5.0			
OUTFALL-07-13-11-1	4	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
OUTFALL-07-13-11-			nd	5.0			
OUTFALL-07-14-11-1	5	1.0					
OUTFALL-07-14-11-			nd	5.0			
OUTFALL-07-17-11-1	5	1.0					
OUTFALL-07-17-11-			nd	5.0			
OUTFALL-07-18-11-1	5	1.0					
OUTFALL-07-18-11-3			nd	5.0			
OUTFALL-07-19-11-1	4	1.0					
OUTFALL-07-19-11-			nd	5.0			
OUTFALL-07-20-11-1	5	1.0					
OUTFALL-07-20-11-			nd	5.0			
OUTFALL-07-21-11-1			nd	5.0			
OUTFALL-07-21-11-	6	1.0					
OUTFALL-07-24-11-1	5	1.0					
OUTFALL-07-24-11-			5	5.0			
OUTFALL-07-25-11-1	6	1.0					
OUTFALL-07-25-11-			nd	5.0			
OUTFALL-07-26-11-1	6	1.0					
OUTFALL-07-26-11-			nd	5.0			
OUTFALL-07-27-11-1	5	1.0					
OUTFALL-07-27-11-			nď	5.0			
OUTFALL-07-28-11-1	7	1.0					
OUTFALL-07-28-11-			. nd	5.0			
OUTFALL-07-31-11-1	5	1.0	-				
OUTFALL-07-31-11-	-		5	5.0			
Red Pond-07-05-11-09:30-1	500	1.0					
Red Pond-07-11-11-08:30-1	450	1.0					

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments
Red Pond-07-18-11-08:30-1	310	1.0					
Red Pond-07-25-11-08:10-1	240	1,0					

Laboratory Report

Client:

Pall Life Sciences

Report:

265862

Attn:

John Campbell

Priority:

Standard Written

600 South Wagner Road

Status:

Amended

Ann Arbor, MI 48103

PWS ID:

Not Supplied

Copies

to: Laurel Beyer

	Sampl	e Information			
UL ID#	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
2488841	HC/HR-7-22-11-0810	317.0	07/22/11 08:10	Client	07/29/11 10:00
2488842	HC/HR-7-25-11-09:35	317.0	07/25/11 09:35	Client	07/29/11 10:00
2488843	HC/HR-7-26-11-0810	317.0	07/26/11 08:10	Client	07/29/11 10:00
2488844	HC/HR-7-27-11-0840	317.0	07/27/11 08:40	Client	07/29/11 10:00
2488845	HC/HR-7-28-11-0825	317.0	07/28/11 08:25	Client	07/29/11 10:00
2488846	Outfall 001-7-21-11	317.0	07/21/11 00:00	Client	07/29/11 10:00
2488847	Outfall 001-7-24-11	317.0	07/24/11 00:00	Client	07/29/11 10:00
2488848	Outfall 001-7-25-11	317.0	07/25/11 00:00	Client	07/29/11 10:00
2488849	Oulfall 001-7-26-11	317.0	07/26/11 00:00	Client	07/29/11 10:00
2488850	Outfall 001-7-27-11	317.0	07/27/11 00:00	Client	07/29/11 10:00
2488851	Ouffall 001-7-28-11	317.0	07/28/11 00:00	Client	07/29/11 10:00

Report Summary

Note: Sample containers were provided by the client.

Note: This report was amended on 08/16/11 to correct the bromate results for sample sites Outfall 001-7-27-11 and Outfall 001-7-28-11 due to a laboratory error.

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

Title \

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10100

Client Name:

Pall Life Sciences

Report #:

265862

Page 1 of 5

Client Name: Pall Life Sciences

Report #: 265862

Sampling Point: HC/HR-7-22-11-0810

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	***	08/03/11 12:57	2488841

Sampling Point: HC/HR-7-25-11-09:35

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		08/03/11 13:52	2488842

Sampling Point: HC/HR-7-26-11-0810

PWS ID: Not Supplied

			Gene	raliCh	emistry			1.000	
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		08/03/11 14:11	2488843

Sampling Point: HC/HR-7-27-11-0840

PWS ID: Not Supplied

			Gene	ral Ch	emistry				
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL, 10 #
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		08/03/11 14:29	2488844

Sampling Point: HC/HR-7-28-11-0825

PWS ID: Not Supplied

			Gene	ral Ch	emistry-				
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
	Bromate	317.0	10 *	1.0	< 1.0	ug/L		08/03/11 14:48	2488845

Client Name: Pall Life Sciences

Report #: 265862

Sampling Point: Outfall 001-7-21-11

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	4.3	ug/L_		08/03/11 15:06	2488846		

Sampling Point: Outfall 001-7-24-11

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	Bromale	317.0	10 *	1.0	5.1	ug/L		08/03/11 15:25	

Sampling Point: Outfall 001-7-25-11

PWS ID: Not Supplied

			Gene	ral Chi	emistry				
Analyte ID #	Analyte	Method		MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 '	1.0	4.8	ug/L		08/03/11 16:45	2488848

Sampling Point: Outfall 001-7-26-11

PWS ID: Not Supplied

			Gene	ral Ch	emistry.				2.0
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	4.6	ug/L	•••	08/03/11 17:03	2488849

Sampling Point: Outfall 001-7-27-11

PWS ID: Not Supplied

			Gene	raliOhe	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	4.9	ug/L		08/03/11 18:12	2488850

Client Name: Pall Life Sciences Report #: 265862

Sampling Point: Outfall 001-7-28-11

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	4.9	ug/L		08/03/11 18:32	2488851

† 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]
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į	Symbol:	*	۸	!!!

Client Name: Pall Life Sciences Report #: 265862

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.





Laboratory Report

Client:

Attn:

Pall Life Sciences

John Campbell

600 South Wagner Road Ann Arbor, MI 48103 Report:

266039

Priority:

Rush Written

Status:

Amended

PWS ID:

Not Supplied

Copies

to: Laurel Beyer

	<u> </u>	ample information			
UL ID#	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
2490459	Outfall 001-7-31-11	317.0	07/31/11 00:00	Client	08/02/11 09:45
2490460	HC/HR-7-29-11-0750	317.0	07/29/11 07:50	Client	08/02/11 09:45
2490461	HC/HR-8-1-11-0835	317.0	08/01/11 08:35	Client	08/02/11 09:45

Report Summary

Note: Sample containers were provided by the client.

Note: The samples submitted for analysis were received unpreserved. The samples were preserved by laboratory personnel prior to analysis.

Note: This report was amended on 08/16/11 to correct the bromate results for the sample site Outfall 001-7-31-11 due to a laboratory error.

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

08-16-2011

Client Name:

Pall Life Sciences

Report #:

266039

Page 1 of 3

Client Name: Pall Life Sciences

Report #: 266039

Sampling Point: Outfall 001-7-31-11

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	5.2	ug/L	+-+	08/03/11 20:32	

Sampling Point: HC/HR-7-29-11-0750

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		08/03/11 20:52	

Sampling Point: HC/HR-8-1-11-0835

PWS ID: Not Supplied

		STATE OF THE PROPERTY OF THE P	::Gene	Sec. 200	100				
Analyte ID#	Analyte	Method		MRL†		Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	< 1.0	ug/L		08/03/11 21:12	2490461

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

4		<u> </u>		
	Reg Limit Type:	MCL	SMCL	AL I
	Symbol:	*	A	The state of the s

Client Name: Pall Life Sciences Report #: 266039

Lab Definitions

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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.

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2105 Pless Drive · Brighton, Michigan 48114 · Phone (810) 229-7575 · Fax (810) 229-8650 · E-mail bai-brighton@sbcglobal.net

August 05, 2011

Pall Corp. 600 S. Wagner Bldg. 4 Ann Arbor, MI 48103

Subject:

Dear Mr. Campbell:

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Enclosed are the results for the samples submitted on 08/01/2011 for the above mentioned project. Duplicate copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be mailed with copy of report. If you have any questions concerning the invoice or the data, please don't hesitate to contact our office. Please reference Brighton Analytical, L.L.C. project ID 15593 when calling with any questions regarding this project.

Sincerely, Brighton Analytical, L.L.C.



Shton Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.C. TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: Submit Date:

7/24/2011 8/1/2011

Report Date:

8/5/2011

BA Report Number: 15593

BA Sample ID: BV05666

Project Name:

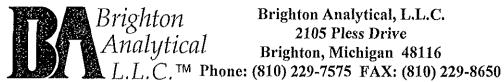
Project Number:

Sample ID: Outfall 001

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM) 1,4-Dioxane (SIM)	5	ug/L	1	SW846 8260B	cw	8/1/2011
)

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



Brighton Analytical, L.L.C. 2105 Pless Drive

Brighton, Michigan 48116

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: 7/25/2011 Submit Date: 8/1/2011

Report Date:

8/5/2011

BA Report Number: 15593

BA Sample ID: BV05667

Project Name:

Project Number:

Sample ID: Outfall 001

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	6	ug/L	1	SW846 8260B	CW	8/1/2011
DL=Reported detection limit for analycompounds require special analytical target detection limits (TDL).		Rele	ased by: Date:	100pl 8/5	111	



Shton Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.C. TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: Submit Date:

7/26/2011 8/1/2011

Report Date:

8/5/2011

BA Report Number: 15593

BA Sample ID: BV05668

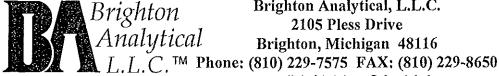
Project Name:

Project Number:

Sample ID: Outfall 001

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM) 1,4-Dioxane (SIM)	6	ug/L	1	SW846 8260B	CW	8/1/2011
DL=Reported detection limit for ana	lytical method requested.	Some	Relea	ased by:	Thosol	/

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).



Brighton Analytical, L.L.C. 2105 Pless Drive

Brighton, Michigan 48116

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Report Date: 8/5/2011

Sample Date:

Submit Date:

7/27/2011

8/1/2011

BA Report Number: 15593

BA Sample ID: BV05669

Project Name:

Project Number:

Sample ID: Outfall 001

Analysis **Parameters** Results Units DL Method Reference Analyst Date 1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

5

ug/L

1

SW846 8260B

CW

8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



Brighton Analytical, L.L.C.

2105 Pless Drive
Brighton, Michigan 48116

L.C. TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

Sample Date:

7/28/2011

Submit Date:

8/1/2011

Report Date:

8/5/2011

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

BA Report Number: 15593

_BA Sample ID: BV05670

Project Name:

Project Number:

Sample ID: Outfall 001

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	7	ug/L	1	SW846 8260B	CW	8/1/2011
DL=Reported detection limit for an compounds require special analytic		Rele	ased by:	Utiono	2	
target detection limits (TDL).	cal methods to achieve MD	NK designated		Date:	/ 8/5	(1)1



C TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: 7/31/2011 Submit Date:

Report Date:

8/1/2011 8/5/2011

BA Report Number: 15593

Project Name:

BA Sample ID: BV05671

Project Number:

Sample ID: Outfall 001

Analysis Units DLMethod Reference Analyst **Parameters** Results Date 1,4-Dioxane(SIM) 1,4-Dioxane (SIM) ug/L 1 SW846 8260B CW 8/1/2011 5

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

Sample Date:

7/25/2011

Submit Date:

8/1/2011

Report Date:

8/5/2011

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

BA Report Number: 15593

BA Sample ID: BV05672

Project Name:

Project Number:

Sample ID: RP

Analysis DLMethod Reference **Parameters** Results Units Analyst Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

240

ug/L

1

SW846 8260B

CW

8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:

Page 1



TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

8/1/2011

Submit Date:

8/1/2011

Report Date:

8/5/2011

BA Report Number: 15593

BA Sample ID: BV05673

Project Name:

Project Number:

Sample ID: RP

Analysis Analyst DL Method Reference Results Units Date **Parameters**

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

430

ug/L

1

SW846 8260B

CW

8/1/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

	Brighton Ana	The build reliase	FIGRORES NO	$\mathcal{L}^{\mathbb{T}}$	4 3 14	ା .		JECT#	- 1		Analysis Requested/Method		PAGE COMPANY/MA	OF ILING ADDR	RESS:
	email: bai-brighton@st 2105 Pless Drive Brighton, MI 48114	Phone:	810-2			AB	BREV OR M	IATION IATRIX Solid					PA11 Co 600 S W	rp Haner	
ROJECT NA	ME: Pall Con		SANCE COLOR	are to the same of	Mark Hon	ua.	L=I	iquid inking H	20				Ann Arbor		
ROJECT #:	1001						O ≂	·Oil Vipes		0			ATTN: John	Compbe	//
						A	- Air	Tedlar Baj Filter	د ه	1			PHONE: 734 -:		10
O #: (PLEASE	NOTE IF DIFFERENT BILLING ADI	DRESS)				T-		M=Mi	sc b	<i>"</i>			FAX OR EMAIL:	······································	
imple Collect	ted By:				Conto	inor/	Quant		Samnle Matrix	Dioxore			Samples received within	n hold time? ye	s no
EOUESTED	TURNAROUND: (circle one)	IfRU	SH,	<u> </u>	T	inter/			— in				Temperature of sample	s "C:	
ush: 1 -3 busin	ess days (verify with lab & specify date needed) t 2 Day= 2X Cost 3 Day = 1.5X Cost	approve	ed by:	YN MA			Preserved?	CTERIA	- B	1		İ	pHs verified in login?	yes no	· · · · · · · · · · · · · · · · · · ·
andard: 5 bu		Sample	Coll.	(PRES)	FINO,	NAOH	Pre	ZED BA	reserved	1			Headspace/bubbles in	VOA's? yes	no n/s
righton ID#	Sample Description	Date	Time	VOA'S (PRESYN M.	HDPE RNO,	HDPE NAOH	AMBER Preserved?	STERILIZED BACTERIA	MEOH Preserved	`			Sample containers and		
). حاماط	OUTFALL 001	7-2411	-	7						2					
4000	01-TF21/001	7-25-11		1		-			جا—	7			BILLING ADDRESS (IF REQUIRED;):
68	out \$211001	7-26-11			++				1963 13 1863 13 1863 13	2			John-Cons	bell @ PA	11.C
69	out=11001	7-27-11	-			+-		- 		7			Coure L_B.	work P	211.0
70	outFo 1/001	7-28-1	, –							2				<u> </u>	<u></u>
71	out Fallool	7-31-11	/_			-				2					
72	RP	7-25-11	08/6	,						2					
73	PP	8-1-11	0800		++				0	12			Drinking H2O: FAX	TO LCHD y	es no
		1		4		-		+	200			_	Chlorinated Water Supply	? y	yes no
0)					++	_								AMT.:	
	-		<u></u>						334				MCL failure: yes		
Special Inst				1 - C. 10-10-00			200 200		Provincia a.	atarerran			Client notified (date/tir		
	Please fill out the C	hain of C	Custody	comp	letely	and	revie	v. Inco	rrect (r inco	mplete information will result	in a "h	old" on all analyses	•	
rans.	RELINQUISHED BY:	REC	EIVED	BY:		DA.	TE:	TIME:	Trai		RELINQUISHED BY:	F	RECEIVED BY:	DATE:	TIME
1	~ Celle	X (()	d	/		8-1-	//	2:01p	3						
/ <u>// ~</u>			×1\			 		······································	4			····	!		



BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY CONTROL

GC/MS **VOLATILE METHOD 8260B-SIM**

Inst./Detec: VOL 5-GC/MS

70-130

103%

82%

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

1769

19.8

Laboratory ID:	BV05673	Matrix:	Water	<u>.</u>	Analyst:	CW		
		Matrix Spike - Pre	cision *		Matrix Spi	ke - Accuracy	LCS- percen	t recovery
SURROGATES	SPK 1	STD	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	LCS	Method Blank
COMPOUNDS								_

10ug/L

1,4 Dioxane * Matrix spike precision +/-20 Relative Percent Difference.

8.2

August 1, 2011

Spike Std. ID:

10.0

	equival		

Analysis Date:

Comments:		
Comments.	 ******	

2105 Pless Drive · Brighton, Michigan 48114 · Phone (810) 229-7575 · Fax (810) 229-8650 · E-mail bai-brighton@sbcglobal.net

July 28, 2011

Pall Corp. 600 S. Wagner Bldg. 4 Ann Arbor, MI 48103

Subject:

Dear Mr. Campbell:

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Enclosed are the results for the samples submitted on 07/22/2011 for the above mentioned project. Duplicate copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be mailed with copy of report. If you have any questions concerning the invoice or the data, please don't hesitate to contact our office. Please reference Brighton Analytical, L.L.C. project ID 15470 when calling with any questions regarding this project.

Sincerely, Brighton Analytical, L.L.C.



Brighton Analytical, L.L.C. 2105 Pless Drive

Brighton, Michigan 48116

Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/13/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05320

Project Name:

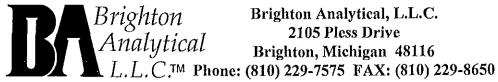
Project Number:

Sample ID: MW58d

Analysis Results Units DLMethod Reference Analyst **Parameters** Date 1,4-Dioxane(SIM) CW1,4-Dioxane (SIM) SW846 8260B 7/24/2011 11 ug/L

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/13/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05321

Project Name:

Project Number:

Sample ID: MW26

Parameters

Results

Units

DL

Method Reference

Analyst

Analysis

Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

4

ug/L

ĺ

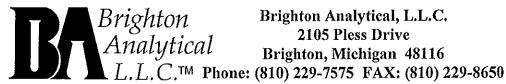
SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: Submit Date:

7/13/2011

7/22/2011

Report Date:

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05322

Project Name:

Project Number:

Sample ID: MW52i

Parameters

Results

Units

DL

Method Reference

Analyst

Analysis Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

Not detected

ug/L

1

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



Brighton Analytical Analytical Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.L.C. Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

Sample Date:

7/13/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

BA Sample ID: BV05323

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

BA Report Number: 15470

Project Name:

Project Number:

Sample ID: MW52d

Parameters

Results

Units

DL

Method Reference

Analyst

Analysis Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

Not detected

ug/L

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



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e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

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Bldg. 4

Ann Arbor, MI 48103

Sample Date: Submit Date: 7/13/2011

7/22/2011

Report Date:

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05324

Project Name:

Project Number:

Sample ID: MW46

Analysis Method Reference Results Units DLAnalyst **Parameters** Date 1,4-Dioxane(SIM) 1

1,4-Dioxane (SIM)

36

ug/L

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



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e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

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Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/13/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05325

Project Name:

Project Number:

Sample ID: MW27

Parameters

DL

Method Reference

Analysis

Results

Units

Analyst

Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

7

ug/L

1

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail; bai-brighton@sbcglobal.net

Sample Date:

7/13/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

BA Report Number: 15470

BA Sample ID: BV05326

Project Name:

Project Number:

Sample ID: MW49

Parameters

Results

Units

DL

Method Reference

Analyst

Analysis Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

2

ug/L

1

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

Sample Date:

7/13/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

BA Report Number: 15470

BA Sample ID: BV05327

Project Name:

Project Number:

Sample ID: Outfall 001

Parameters

Results

Units

DL

Method Reference

Analyst

Analysis Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

4

ug/L

1

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



L.L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: 7/14/2011 Submit Date:

7/22/2011

Report Date: 7/28/2011

BA Report Number: 15470

BA Sample ID: BV05328

Project Name:

Project Number:

Sample ID: Outfall 001

Analysis Results Units DLMethod Reference Analyst **Parameters** Date 1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

5

ug/L

1

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



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e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/17/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05329

Project Name:

Project Number:

Sample ID: Outfall 001

Analysis Units DLMethod Reference **Parameters** Results Analyst Date 1,4-Dioxane(SIM) CW1,4-Dioxane (SIM) 5 ug/L ſ SW846 8260B 7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:



righton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

Sample Date:

7/18/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

BA Report Number: 15470

BA Sample ID: BV05330

Project Name:

Project Number:

Sample ID: Outfall 001

Analysis **Parameters** Results Units DLMethod Reference Analyst Date 1,4-Dioxane(SIM) 1,4-Dioxane (SIM) 5 ug/L 1 SW846 8260B CW 7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116

L.L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/19/2011

Submit Date:

7/22/2011

Report Date:

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05331

Project Name:

Project Number:

Sample ID: Outfall 001

Parameters

Results

Units

DL

Method Reference

Analyst

Analysis

Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

4

ug/L

1

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:

11/10pd_ 7/28/11



Brighton Analytical, L.L.C. 2105 Pless Drive

Brighton, Michigan 48116

L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: 7/20/2011 Submit Date: 7/22/2011

Report Date: 7/28/2011

BA Report Number: 15470

BA Sample ID: BV05332

Project Name:

Project Number:

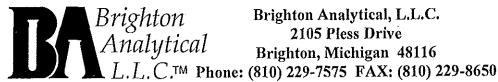
Sample ID: Outfall 001

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM)						
1,4-Dioxane (SIM)	5	ug/L	1	· SW846 8260B	CW	7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/21/2011

Submit Date: Report Date:

7/22/2011

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05333

Project Name:

Project Number:

Sample ID: Outfall 001

Parameters

Results

Units

DL

Method Reference

Analyst

Analysis

Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

6

ug/L

1

SW846 8260B

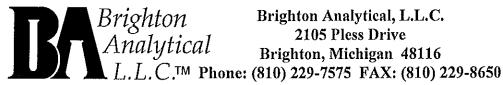
CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/18/2011 7/22/2011

Submit Date: Report Date:

7/28/2011

BA Report Number: 15470

BA Sample ID: BV05334

Project Name:

Project Number:

Sample ID: RP

Analysis Results Units DLMethod Reference Analyst **Parameters** Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

310

ug/L

20

SW846 8260B

CW

7/24/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:

Elevated volatile dl due to sample matrix.



BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY CONTROL

GC/MS VOLATILE METHOD 8260B-SIM

Inst./Detec: VOL 5-GC/MS

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Laboratory ID:	BV05334	Matrix:	Water		Analyst:	CW		
		-		•	_			
		Matrix Spike - Pre	cision *		Matrix Spi	ke - Accuracy	LCS- percent	recovery
URROGATES	SPK 1	STD	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	LCS	Method Blank

C	COMPOUNDS							<u> </u>
1	,4 Dioxane	9.0	8.0	11.8	10ug/L	85%	70-130	80%

* Matrix spike precision +/-20 Relative Percent Difference.

July 24, 2011

Analysis Date:

(ug/L is equivalent to ppb)

Comments:

Spike Std. ID:

				S PA DDG	OJECT #:	T	75 A		PAGE	OF 2	
	Brighton Ana	127 P. 19 P. L. C. S. CON. 1988 2 S. L. C.	6.67. Markatakan	151		A	nalysis Requested/Method	1	COMPANY/MAI		ess:
	email: bai-brighton@st				ATIONS:				Pall Corp	Blda	4
sali i	2105 Pless Drive Brighton, MI 48114	Phone: 810-2 FAX: 810-2		FOR N	IATRIX Solid				600 5 W	drer	
ROJECT N	AME: $\mathcal{D}_{\mathcal{A}}$	Pr P	68 (89 (8) (8) (8)	L-J	Liquid inking H ₂ 0				Ann Arton	M:	4810
ROJECT #:	······································			0 :	= Oil - Wines				ATTN: John	Cospl	re//
				A = Air	(Tellar Bag) Filter	[<u>&</u> <u>≥</u> .			PHONE: 734_	368-3	3090
O #: (PLEAS	SE NOTE IF DIFFERENT BILLING ADI	DRESS)		T = Tube	M=Misc.	160×3140×614			FAX OR EMAIL:		
ample Colle	ected By:	The short control of the orbital col	Com	ainer/Quant		3 3			Samples received within	hold time?) по
EQUESTE:	D TURNAROUND: (circle one)	If RUSH,			. · · · · · · · · · · · · · · · · · · ·	調べ			Temperature of samples '	10:4	
u sh: 1 -3 bus	siness days (verify with lab & specify date needed) ost 2 Day= 2X Cost 3 Day = 1.5X Cost	approved by:		OH Preserved?	CTERIA	$ \mathbf{S} = 1$			pHs verified in login?	yes (fig)	······································
	business days	Sample Coll.	VOA'S (PREELY) IDPE UNPRESERV IDPE HNO;	NAOH	ZED BA	51			Headspace/bubbles in V	'OA's? yes (no n/a
Brighton ID #	Sample Description	Date Time	VOA'S (PRE HDPE UNPRE HDPE HNO)	HDPE H ₂ SO ₂ HDPE NAOH AMBER Preserved?	STERLIZED BACTERIA MEOH Preservel Y N				Sample containers and C	OC match? (es	no
5220	MW58L	7-13-11 1030	2								<u> </u>
21	Mw 26	7-13-11 1415							BILLING ADDRESS (II	REQUIRED):	
22	MW52;	7-13-11 1340							John Con	ppell 0	BILL
23	MW52d	7:43-11 1315							LAUREL = Be	ver B	PallaC
24	MW 46	7-13-110950	2								
25	MW27	7-13-1101915	2								
) Zi	MW49	7-13-11 0830	2								
27	00+F211001	7-13-1 -	-2						Drinking H2O: FAX	O LCHD ye	s no
28	ONFOLLOU (7-14-11 -	2						Chlorinated Water Supply ?	ye AMT.:	s no
0) 29	OFFAILORD!	7-12-11 -	12-			41			MCL failure: yes no		
······································	structions:							<u> </u>	Client notified (date/time	z/initials):	
, L 201111 VIII		hain of Custon	ly completel	and revie	w. Incorr	ect or incor	nplete information will res	ilt in a "h	old" on all analyses.		
	i teme jin om ne		 Compared to the state of the st						<u> </u>	<u> </u>	
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		Brighton Ana			L.C	•TM		В	A PRO	JECT	#: N			Analysis	Reque	sted/M	ethod	PAGE COMPANY/N	OF Z	RESS:
		email: bai-brighton@st 2105 Pless Drive Brighton, MI 48114	poglobaline Phone FAX:	: 810-2						LATIC ATRE								-		
	PROJECT NA	ME:	na corobar	especia e	geresent.	***DAY	distriction of the second	DV	L=1	iquid oking	H.0							10/12 11/11 11/11	· · · · · · · · · · · · · · · · · · ·	······································
	PROJECT #:				·			27 (3) 27 (3) 37 (3)	O = P = V	Oil Vipes								ATTN:		
	PO #: (PLEASI	NOTE IF DIFFERENT BILLING ADI	DRESS)		·	<u>-</u>		Taka	F=1	Tedlar B Filter		lix			.			PHONE:		
									Tube	M=1	lisc.	Mat		S			İ	FAX OR EMAIL:		
	Sample Collec	ted By:				(Conta	iner/	Quanti	ity		ple	Ž					Samples received wit	hin hold time? ye	es no
	REQUESTED	TURNAROUND: (circle one)	If RU		¥ _N	a			d? IVE	_ <		Sample Matrix						Temperature of samp	les °C:	
	1 Day =2.5X Cos Standard: 5 bu	tess days (verify with lab & specify date needed) t 2 Day= 2X Cost 3 Day = 1.5X Cost	approv	eu by:	VOA'S (PRES(Y)	HDPE UNPRESERVED			AMBER Preserved? GLASS NO PRESERVATIVE	STERLIZED BACTERIA	Z >-		,					pHs verified in login	? yes no	
	Brighton ID #		Sample		'S (PRE	HAND S	HDPE HINO,	NAOH	ER P	112ED (MEOH Preserved	300 K	」					Headspace/bubbles	in VOA's? yes	no n/a
S	Brighton ID#	Sample Description	Date	Time		HOP	E SE	HDPE	AMB	STER	FEOF	On 6						Sample containers an	d COC match? ye	es no
₩ 3	230	OUTFA11001	7-18-11		2							ب	X				172			
	²⁾ 3/	ortFa11001	7-19-11									Y	1					BILLING ADDRESS	(IF REQUIRED)):
	3) 32	out Fa11001	7-2041		7															***************************************
	4) 33	out FA1/001	7-2/-//		2							12 3								
	5) 34	RP	7-13-11	0830	2							J	7							
	6)											(230.6) Notice								
	7)																		······	
	8)																	Drinking H2O: FA	X TO LCHD ye	es no
	9)											640.0	•					Chlorinated Water Supp	ly? yı	es no
	10)					_						200						MCL failure: yes	AMT.:	
	Special Inst	ructions:						1	<u> </u>									Client notified (date/t		
	*		hain of I	Tretork		unle	als	1017	Test test	. .	(484)				.	X60434	r en	i "hold" on all analyse	·	
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	2	3			/	***************************************				·		4						***************************************		

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:

265499

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								
2485144	Outfall 001-7-12-11	317.0	07/12/11 00:00	Client	07/22/11 09:30								
2485145	Outfall 001-7-13-11	317.0	07/13/11 00:00	Client	07/22/11 09:30								
2485146	Outfall 001-7-14-11	317.0	07/14/11 00:00	Client	07/22/11 09:30								
2485147	Outfall 001-7-17-11	317.0	07/17/11 00:00	Client	07/22/11 09:30								
2485148	Outfall 001-7-18-11	317.0	07/18/11 00:00	Client	07/22/11 09:30								
2485149	Outfall 001-7-19-11	317.0	07/19/11 00:00	Client	07/22/11 09:30								
2485150	Outfall 001-7-20-11	317.0	07/20/11 00:00	Client	07/22/11 09:30								
2485151	HC/HR-7-13-0735	317.0	07/13/11 07:35	Client	07/22/11 09:30								
2485152	HC/HR-7-14-0825	317.0	07/14/11 08:25	Client	07/22/11 09:30								
2485153	HC/HR-7-15-0835	317.0	07/15/11 08:35	Client	07/22/11 09:30								
2485154	HC/HR-7-18-0825	317.0	07/18/11 08:25	Client	07/22/11 09:30								
2485155	HC/HR-7-19-0810	317.0	07/19/11 08:10	Client	07/22/11 09:30								
2485156	HC/HR-7-20-0815	317.0	07/20/11 08:15	Client	07/22/11 09:30								
2485157	HC/HR-7-21-0825	317.0	07/21/11 08:25	Client	07/22/11 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

Report #:

265499

Page 1 of 5

Hient Name: Pall Life Sciences

Report #: 265499

Sampling Point: Outfall 001-7-12-11

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	4.0	ug/L		07/26/11 14:23	2485144

Sampling Point: Outfall 001-7-13-11

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	4.4	ug/L		07/26/11 15:18				

Sampling Point: Outfall 001-7-14-11

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	4.7	ug/L		3	2485146

Sampling Point: Outfall 001-7-17-11

PWS ID: Not Supplied

			Gene	ral Ch	emistry.				500000
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
15541-45-4	Bromate	317.0	10 *	1.0	4.5	ug/L	The state of the s	07/26/11 15:55	2485147

Sampling Point: Outfall 001-7-18-11

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	4.4	ug/L		07/26/11 16:14	2485148

Client Name: Pall Life Sciences

Report #: 265499

Sampling Point: Outfall 001-7-19-11

PWS ID: Not Supplied

			Gene	ral Cho	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	4.2	ug/L		07/26/11 16:32	2485149

Sampling Point: Outfall 001-7-20-11

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	3.8	ug/L		07/26/11 16:51	2485150		

Sampling Point: HC/HR-7-13-0735

PWS ID: Not Supplied

General Chemistry									
Analyte ID#	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	UL ID#
1	Bromate	317.0	10 *	1.0	< 1.0	ug/L.		07/26/11 17:09	2485151

Sampling Point: HC/HR-7-14-0825

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		317.0	10 *	1.0	< 1.0	ug/L	***	07/27/11 10:59	2485152

Sampling Point: HC/HR-7-15-0835

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		07/27/11 11:17	2485153	

lient Name: Pall Life Sciences

Report #: 265499

lampling Point: HC/HR-7-18-0825

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		07/27/11 11:36	2485154

ampling Point: HC/HR-7-19-0810

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.	***	07/27/11 11:54	2485155	

ampling Point: HC/HR-7-20-0815

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		07/27/11 12:13	2485156

lampling Point: HC/HR-7-21-0825

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	***	07/27/11 12:31	2485157	

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

	(2. m. 2 v. 3. st.), 17 million (1. m. 1.		
Reg Limit Type:	MCL	SMCL	AL.
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Symbol:	*	٨	!

Client Name:

Report #: 265499

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.

1.0

Target

1.0

5.0

1.0

0.0000

Amount

Amount

4.6260

Run Number: 158740 PC File Name: 072611A Order Number: 210512

Instrument: IC BK Analyst: S. Lovick Receipt Batch: 265499 Method(s): 317.0 Submitted By: S. Lovick Today's Date: 07/28/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2481889 Extracted: N/A

Type: Initial Calibration Blank Analyzed: 07/18/2011 10:30

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

MRT.

Report Units Amount _____ -----< 1.0 ug/L

Type: Laboratory Reagent Blank

Sample ID: 2481895 Extracted: N/A

Analyzed: 07/26/2011 12:46

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

MRL ----

Report Units

0.0000 < 1.0 ug/L

Sample ID: 2481896 Extracted: N/A

Type: Laboratory Fortified Blank Analyzed: 07/26/2011 13:05

Dil Factor: 1.000

CAS Number Parameter

Target

Amount % Rec Limits

15541-45-4 Bromate

5.0

93 85-115 Pass

Sample ID: 2481897 Extracted: N/A

Type: Instrument Performance Check Analyzed: 07/26/2011 13:23

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

1.0

Site: Outfall 001-7-12-11

-----1.0010 100 75-125 Pass

Sample ID: 2485144 Extracted: N/A

Type: Field Sample Analyzed: 07/26/2011 14:23

Dil Factor: 1.000

3.9900 4.0 ug/L

CAS Number Parameter

MRL Amount Report Units

15541-45-4 Bromate

Type: Matrix Spike of 2485144

9.0000

Sample ID: 2486760 Extracted: N/A

Analyzed: 07/26/2011 14:41

Site: Outfall 001-7-12-11 Dil Factor: 1.000

CAS Number Parameter ~~-----

15541-45-4 Bromate

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

3.9900 100 75-125 Pass

Extracted: N/A

Sample ID: 2486761 Type: Matrix Spike Duplicate of 2485144 Site: Outfall 001-7-12-11 Analyzed: 07/26/2011 15:00

Dil Factor: 1.000

CAS Number Parameter

Target Amount Parent Amt %Rec Limits P/F ____ -----_______ ~ - - -______ 5.0 15541-45-4 Bromate 8.9370 3.9900 99 75-125 Pass

Sample ID: 2485145 Extracted: N/A

Type: Field Sample

Site: Outfall 001-7-13-11

Analyzed: 07/26/2011 15:18

Dil Factor: 1.000

CAS Number Parameter

_---

MRL

Amount

15541-45-4 Bromate

1.0

Sample ID: 2485146 Extracted: N/A

Type: Field Sample Analyzed: 07/26/2011 15:37 Type: Field Sample

Site: Outfall 001-7-14-11

Dil Factor: 1.000

CAS Number Parameter

MRL Amount

15541-45-4 Bromate

_---1.0

_____ 4.6590 4.7 ug/L

Report Units

NOTE: The dilution factor is included in the percent recovery calculation. Page 1 of 2

Version 2.7.0.0

Run Number: 158740 PC File Name: 072611A Order Number: 210512 Instrument: IC BK

Submitted By: S. Lovick Analyst: S. Lovick Receipt Batch: 265499 Today's Date: 07/28/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski Site: Outfall 001-7-17-11

Sample ID: 2485147

Analyzed: 07/26/2011 15:55

Type: Field Sample

Dil Factor: 1.000

Method(s): 317.0

CAS Number Parameter MRL Amount Report Units -----

4.4710 15541-45-4 Bromate 1.0 4.5 ug/L

Sample ID: 2485148 Type: Field Sample

Site: Outfall 001-7-18-11

Extracted: N/A Analyzed: 07/26/2011 16:14 Dil Factor: 1.000

CAS Number Parameter Report Units _____

4.4060 4.4 ug/L 1.0 15541-45-4 Bromate

Type: Field Sample Sample ID: 2485149 Site: Outfall 001-7-19-11

Extracted: N/A Analyzed: 07/26/2011 16:32 Dil Factor: 1.000

Amount CAS Number Parameter Report Units Amount report siles

4.2040 4.2 ug/L 15541-45-4 Bromate 1.0

Sample ID: 2485150 Type: Field Sample Site: Outfall 001-7-20-11

Extracted: N/A Analyzed: 07/26/2011 16:51 Dil Factor: 1.000

MRL Amount Report Units CAS Number Parameter

1.0 3.7630 3.8 ug/L 15541-45-4 Bromate

Sample ID: 2485151 Extracted: N/A Type: Field Sample Site: HC/HR-7-13-0735

Analyzed: 07/26/2011 17:09 Dil Factor: 1.000

Amount MRL CAS Number Parameter Report Units 1.0 15541-45-4 Bromate 0.1430 < 1.0 ug/L

Sample ID: 2481901 Type: Continuing Calibration Check

Extracted: N/A Analyzed: 07/26/2011 17:50 Dil Factor: 1.000

Target Amount % Rec Limits P/F CAS Number Parameter _____ 10.0 9.6870 97 85-115 Pass 15541-45-4 Bromate

Run Number: 158776 PC File Name: 072711A Order Number: 210512

Instrument: IC BK Analyst: S. Lovick Receipt Batch: 265499 Method(s): 317.0 Submitted By: S. Lovick Today's Date: 07/28/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2482585 Extracted: N/A

Type: Initial Calibration Blank Analyzed: 07/18/2011 10:30

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Report Units _____ < 1.0 ug/L

Sample ID: 2482591 Extracted: N/A

Type: Laboratory Reagent Blank

Dil Factor: 1.000

CAS Number Parameter

Analyzed: 07/27/2011 10:03

15541-45-4 Bromate

Amount MRL ----0.0000 1.0

1.0

Report Units < 1.0 ug/L

Sample ID: 2482592 Extracted: N/A

Type: Laboratory Fortified Blank

Dil Factor: 1,000

CAS Number Parameter

Analyzed: 07/27/2011 10:22 Target

Amount _____

% Rec Limits

15541-45-4 Bromate

5.0

Amount

0.0000

4.5740 91 85-115 Pass

Sample ID: 2482593 Extracted: N/A

Type: Instrument Performance Check
Analyzed: 07/27/2011 10:40 Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Target 1.0

Amount % Rec Limits

P/F 0.9120 91 75-125 Pass

Type: Field Sample Type: Field Sample
Analyzed: 07/27/2011 10:59 Site: HC/HR-7-14-0825

Dil Factor: 1.000

Sample ID: 2485152 Extracted: N/A

MRL Amount Report Units

CAS Number Parameter 15541-45-4 Bromate

1.0

0.0990 < 1.0 ug/L

Sample ID: 2485153
Extracted: N/A

Extracted: N/A

Type: Field Sample Analyzed: 07/27/2011 11:17 Site: HC/HR-7-15-0835

Dil Factor: 1.000

CAS Number Parameter

MRI.

Amount Report Units

15541-45-4 Bromate

1.0

0.0500

< 1.0 ug/L

Sample ID: 2485154 Extracted: N/A

Type: Field Sample Analyzed: 07/27/2011 11:36

Site: HC/HR-7-18-0825

Dil Factor: 1.000

CAS Number Parameter

MRL Amount

_----15541-45-4 Bromate ____ 1.0 Report Units

Sample ID: 2485155 Type: Field Sample Extracted: N/A

Site: HC/HR-7-19-0810

Dil Factor: 1.000

Analyzed: 07/27/2011 11:54

0.1020 < 1.0 ug/L

CAS Number Parameter

MRL ----1.0

Amount ______

Report Units

15541-45-4 Bromate

Type: Field Sample

0.0860 < 1.0 ug/L

Sample ID: 2485156

Extracted: N/A

rype: Field Sample Analyzed: 07/27/2011 12:13

Dil Factor: 1.000

Site: HC/HR-7-20-0815

CAS Number Parameter

MRL Amount Report Units

15541-45-4 Bromate

____ 1.0

0.0750 < 1.0 ug/L

NOTE: The dilution factor is included in the percent recovery calculation. Page 1 of 2

Version 2.7.0.0

Run Number: 158776 PC File Name: 072711A Order Number: 210512 Instrument: IC BK Analyst: S. Lovick Receipt Batch: 265499 Method(s): 317.0 Submitted By: S. Lovick Today's Date: 07/28/2011

Client: Pall Life Sciences / John Campbell

Generated By: A. Chlebowski

Sample ID: 2485157 Extracted: N/A

Type: Field Sample Analyzed: 07/27/2011 12:31

Site: HC/HR-7-21-0825 Dil Factor: 1.000

CAS Number Parameter

______ 15541-45-4 Bromate

----1.0 Amount 0.0000 < 1.0 ug/L

Report Units

Sample ID: 2482596 Extracted: N/A

Type: Continuing Calibration Check

Analyzed: 07/27/2011 14:41

Dil Factor: 1.000

CAS Number Parameter 15541-45-4 Bromate

Target Amount ----

% Rec Limits P/F ----10.0 9.7310 97 85-115 Pass



Environmental Laboratory Services

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

Chain of Custody Record

26 5499

Page ______ of ____

Company PALL Corp	Requested Turnaround; Standard 4 business days * 3 business days
Name John Campbell	48 hours * 24 hours * ASAP / Same day
Street 600 5 WALNER.	Project Name / Number: Bromate,
City Ann Actor State Mi Zip 48/03	Print Sampler Name: John Campbell / Cristian Drug
Phone $734 - 368 - 3090$ Fax $734 - 913 - 6103$	Invoice To: Atten Laurel Beyer
Email John-Compbell@PalliCare) ()
Lourel - Beyer @ Palli Com	

	- AHENT	DRAW		W	ater	Mat	Water Matrix Preservation									
	Sample Identification or Location (This will appear on the final		Sample Ville	Drinking	Ground	Waste	Striffe	er.	Requested Testing	None	4 ° C	HCI	HNO ₃	H ₂ SO ₄	Other	Lab ID
1	outfalla01-7-12-11	71/21/1	—		1				Bromote	火						2485144
2	out Fall 001-7-13-11	71/31/1)				1	X						145
3	outfall001-7-14-11	71/4111								4						146
4	OUTTFALLOO 1-7-17-11	7117161			1				11/	4						1 147
5	otFall001-7-18-11	71/81/1			1					×						148
6	outrall 001- 7-11-11	71/91-11			1				ŀ	X						149
7	out+11001-7-20-11	71201/1	سسبسر		1					×						150
8	HC/HR-7-13-11-0735	743111	07:35				1			X						151
9	HC/HR-7-14-11-0825	7114111	08:25				1			X						, 152
10	AC/HR-7-15-11-0835	71151/1	08:35				1	••••••	1	4		-				V 153
	ed by Sampler:	Date: / /	Time: :	Rec	eived/	by: Оон	ا مد	Des	nee	-1-1	·		-Date	22	11/	Time: 09:30
Relea	ed by:	Date: / /	Time: :	Rec	eived	by:							Date		1	Time: :

Within holding times Y N	Containers are intact Y N	Labels and COC agree Y N Correct volume and conta	iner Y N Ice remaining	Y N Temperature on receipt 5 °C
	· · · · · · · · · · · · · · · · · · ·)
	i			



Environmental Laboratory Services

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

Chain of Custody Record

 $\frac{210572}{2}$ Page 2 of 2

Compar	y PALL CORP	Requested Turnaround: Standard * 4 business days * 3 business days
Name	John Complell	48 hours * 24 hours * ASAP / Same day
Street	600 S. Wigner	Project Name / Number: Browatc
City	And Arbor State Minazion GARA	Print Sampler Name: T. Compbell C. Dung
Phone	734-368-3090 Fax 734-743-48696	Invoice To: Atten Loure Bever
Email	John-Compbella Pollagora	NIKISE /
	Lourd - Beyer @ SANPER CUNIT	AINE

				W	ater	Mat	rix	of irs			Pr	esei	rvati	on		
	Sample Identification or Location (This will appear on the final report)	Sample Date	Sample Time	Drinking	Ground	Waste		Number of Containers	Requested Testing	None	4 ° C	모	HNO3	H ₂ SO ₄	Other	Lab ID
1	HC/HR-7-18-11-0825	7118111	08:25						Bromate	; <u>Y</u>						3485164
2	HC/HR-7-19-11-0810	7 1/9 1/1	08:10				1)	×						1 65
3	AC/HR-7-20-11-0815	7120111	08:15				1			X						156
4	HC/HR-7-21-11-0825	712/1/1	08:25				1			X						1/157
5		1 1	*						***************************************							
6		1 1	:													of the control of
7		1 1	•					·			·					
8		1 1	•													
9		. 1 1	•													100 - 100 -
10	. h	1, 1										-				
Releas	ed by Sampler:	Date: 7/2///	Time: 10:30	Rec	eived	by: L	السا	Dep	\ 14Q .	1	I		Date	22	1(Time; 9:30
Releas	ed by:	Date: / /	Time: :	Rec	eived	by:				····			Date		1	Time: :

· · · · · · · · · · · · · · · · · · ·						
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



2105 Pless Drive · Brighton, Michigan 48114 · Phone (810) 229-7575 · Fax (810) 229-8650 · E-mail bai-brighton@sbcglobal.net

July 26, 2011

Pall Corp. 600 S. Wagner Bldg. 4 Ann Arbor, MI 48103

Subject:

Dear Mr. Campbell:

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Enclosed are the results for the samples submitted on 07/13/2011 for the above mentioned project. Duplicate copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be mailed with copy of report. If you have any questions concerning the invoice or the data, please don't hesitate to contact our office. Please reference Brighton Analytical, L.L.C. project ID 15313 when calling with any questions regarding this project.

Sincerely, Brighton Analytical, L.L.C.



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116

¹ Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: Submit Date: 7/11/2011

7/13/2011

Report Date:

7/26/2011

BA Report Number: 15313

BA Sample ID: BV04801

Project Name:

Project Number:

Sample ID: TW20

Parameters Results Units DL Method Reference Analyst Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

750

ug/L

100

ነበ

SW846 8260B

RG

7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116

L.L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

Sample Date: 7/11/2011 Submit Date:

7/13/2011

7/26/2011

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

BA Report Number: 15313

Report Date:

...BA Sample ID: BV04802

Project Name:

Project Number:

Sample ID: TW11

Analysis **Parameters** Results Units DL Method Reference Analyst Date 1,4-Dioxane(SIM) ug/L 10 RG 1,4-Dioxane (SIM) 98 SW846 8260B 7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



Brighton Analytical Analytical Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/11/2011 7/13/2011

Submit Date: Report Date:

7/26/2011

BA Report Number: 15313

____BA Sample ID: BV04803

Project Name:

Project Number:

Sample ID: TW10

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM) 1,4-Dioxane (SIM)	500	ug/L	50	SW846 8260B	RG	7/21/2011
			Dalor	and by	-4	

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:

110001



Brighton Analytical Analytical Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.L.C. TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/11/2011

Submit Date: Report Date: 7/13/2011 7/26/2011

BA Report Number: 15313

BA Sample ID: BV04804

Project Name:

Project Number:

Sample ID: TW9

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM) 1,4-Dioxane (SIM)	530	ug/L	50	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



Shton

Brighton Analytical, L.L.C.

2105 Pless Drive

Brighton, Michigan 48116

L.C. TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

Project Name:

To: Pall Corp.

Released by:

Date:

7/11/2011 600 S. Wagner

Submit Date: 7/13/2011 Bldg. 4

Report Date: 7/26/2011 Ann Arbor, MI 48103

BA Report Number: 15313

Sample Date:

BA Sample ID: BV04805 Project Number:

Sample ID: LB-3

Parameters Results Units DL Method Reference Analyst Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM) 440 ug/L 50 SW846 8260B RG 7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated

target detection limits (TDL).



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e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

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Ann Arbor, MI 48103

Sample Date:

Report Date:

7/11/2011

Submit Date: 7/13/2011

7/26/2011

BA Report Number: 15313

-BA Sample ID: BV04806

Project Name:

Project Number:

Sample ID: LB-1

Analysis Units DLMethod Reference Analyst Results **Parameters** Date

1,4-Dioxane(SIM)

1,4-Dioxane (SIM)

430

ug/L

50

SW846 8260B

RG

7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



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e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

Sample Date: 7/11/2011 Submit Date: 7/13/2011

Report Date:

7/26/2011

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Ann Arbor, MI 48103

BA Report Number: 15313

BA Sample ID: BV04807

Project Name:

Project Number:

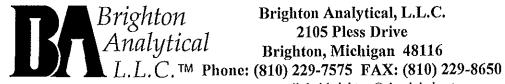
Sample ID: TW-21

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date	
1,4-Dioxane(SIM) 1,4-Dioxane (SIM)	190	ug/L	50	SW846 8260B	RG	7/21/2011	-

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: Submit Date: 7/11/2011 7/13/2011

Report Date:

7/26/2011

BA Report Number: 15313

BA Sample ID: BV04808

Project Name:

Project Number:

Sample ID: TW-5

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date	
1,4-Dioxane(SIM)							
1,4-Dioxane (SIM)	760	ug/L	100	SW846 8260B	RG	7/21/2011	

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



Brighton Analytical, L.L.C. 2105 Pless Drive Brighton, Michigan 48116 L.L.C.TM Phone: (810) 229-7575 FAX: (810) 229-8650

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

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Ann Arbor, MI 48103

Sample Date: 7/11/2011 Submit Date: 7/13/2011

7/26/2011

Report Date:

BA Report Number: 15313

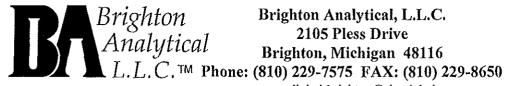
BA Sample ID: BV04809

Project Name:

Project Number:

Sample ID: TW-8

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM) 1,4-Dioxane (SIM)	360	ug/L	10	SW846 8260B	RG	7/21/2011
DL=Reported detection limit for ana compounds require special analytica target detection limits (TDL).			Relea	ised by:	Utfood	المرابا



To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/11/2011 7/13/2011

Submit Date: Report Date:

7/26/2011

BA Report Number: 15313

BA Sample ID: BV04810

Project Name:

Project Number:

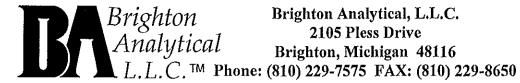
Sample ID: TW22

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM) 1,4-Dioxane (SIM)	470	ug/L	100	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: Submit Date: 7/10/2011 7/13/2011

Report Date:

7/26/2011

BA Report Number: 15313

BA Sample ID: BV04811

Project Name:

Project Number:

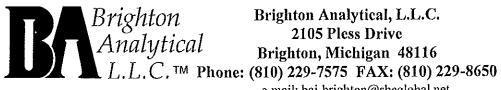
Sample ID: Outfall 001

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,4-Dioxane(SIM) 1,4-Dioxane (SIM)	5.9	ug/L	1	SW846 8260B	RG	7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date:

7/11/2011

Submit Date:

7/13/2011

Report Date:

7/26/2011

BA Report Number: 15313

__BA Sample ID: BV04812

Project Name:

Project Number:

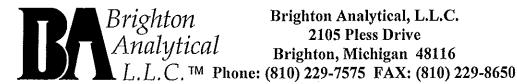
Sample ID: Outfall 001

Analysis Method Reference Analyst Parameters Results Units DLDate 1,4-Dioxane(SIM) RG 1,4-Dioxane (SIM) ug/L 1 SW846 8260B 7/21/2011 6.4

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:



Brighton Analytical, L.L.C. 2105 Pless Drive

Brighton, Michigan 48116

e-mail: bai-brighton@sbcglobal.net

To: Pall Corp.

600 S. Wagner

Bldg. 4

Ann Arbor, MI 48103

Sample Date: Submit Date:

Report Date:

7/6/2011

7/13/2011 7/26/2011

BA Sample ID: BV04813

BA Report Number: 15313

Project Name:

Project Number:

Sample ID: Outfall 001

Analysis **Parameters** Results Units DLMethod Reference Analyst Date 1,4-Dioxane(SIM) 1,4-Dioxane (SIM) 6.7 ug/L 1 SW846 8260B RG 7/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by:

Date:

Page 1



BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY CONTROL

GC/MS VOLATILE METHOD 8260B-SIM

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date:	July 21, 2011	Spike Std, ID:	1769	Inst./Detec: \	VOL 5-GC/MS	_
Laboratory ID:	BV04803	Matrix:	Water	Analyst:	RG	
				<u>-</u>		•
	l/	atrix Spike - Precis	sion *	Matrix Spi	ke - Accuracy	LCS- percent r

		Matrix Spike - P	recision *		Matrix Sp	ike - Accuracy	LCS- percent	recovery
SURROGATES	SPK 1	STD	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	LCS	Method Blank
COMPOUNDS								
1,4 Dioxane	11.1	10.2	8.3	10ug/L	108%	70-130	106%	<1

* Matrix spike precision +/-20 Relative Percent Difference.

Comments:	

GC/MS **VOLATILE METHOD 8260B-SIM**

Inst./Detec: VOL 3-GC/MS

78%

10ug/L

70-130

105%

<1

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

1769

11.6

Laboratory ID:	BV04819	Matrix:	Water		Analyst:	CW		
		Matrix Spike - Pre	ecision *		Matrix Spil	ke - Accuracy	LCS- percen	t recovery
SURROGATES	SPK 1	STD .	Relative Percent Difference	Spk Conc	% Recovery	Range (%)	LCS	Method Blank
COMPOUNDS				<u></u>				

1,4 Dioxane * Matrix spike precision +/-20 Relative Percent Difference.

July 13, 2011

7.3

Analysis Date:

(ug/L is equivalent to ppb)

Comments:

Spike Std. ID:

8.2