

Gelman Sciences, Inc. d/b/a Pall Life Sciences 642 South Wagner Road Ann Arbor, MI 48103 734.436.4025 phone 734.436.4040 fax

CASE NARRATIVE

Monthly Data Pall Life Sciences Project: 1,4-Dioxane Remediation Date: March 2020

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition, all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Gelman Sciences, Inc. d/b/a Pall Life Sciences (PLS) attests to the validity of the laboratory data generated by PLS's Ann Arbor, Michigan Environmental Laboratory facilities reported herein. All analyses performed by PLS's Environmental Laboratory facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. PLS's Environmental group has reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

Many of the March samples were analyzed at by Ann Arbor Technical Services (ATS), the balance were analyzed at Pall Corporation's Environmental Laboratory. The sample split was due to unexpected medical issue in the Pall Laboratory. All test results in this report meet all NELAP requirements for parameters for which accreditation are required or available. Any exceptions to NELAP requirements are noted in this report. All exceptions are noted per laboratory standard operating procedure based on EPA Method 1624c. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results. The odd even rule is used for rounding. Holding times were met for all samples analyzed. Proper preservation was observed on all samples unless otherwise detailed in the individual sections below.

RECEIPT/ STORAGE

The samples were received on the days noted in the report for the Month; the samples arrived in good condition, properly preserved and on ice when necessary. Samples that require 1,4-dioxane analysis are collected in hydrochloric acid-preserved vials to a pH of \leq 2, with the exception of the Pall ozone treatment samples. These samples have compounds that, when mixed with the hydrochloric acid (HCI), cause interferences in the analysis of 1,4-dioxane. Every attempt is made to analyze these samples within 24 hours of receipt.

Samples that require Bromate analysis are collected and preserved in the laboratory with ethylene di-amine and refrigerated.

Samples that are delivered to the laboratory the same day as they are collected are likely not to have reached a fully chilled temperature. This is acceptable if there is evidence that chilling has begun. All samples are iced or refrigerated at 4°C (±2°C) from the time of collection until sample preparation or analysis.

1,4-Dioxane (GC-MS)

All ground water and treated water samples were analyzed for 1,4-Dioxane (GC-MS) in accordance with EPA 1624C, which has been modified to enhance detection limits. Samples that were diluted to bring them within the calibrated range of the instrument are noted with a "D" under the Qualifier Code section of the data report. Reporting limits were adjusted based on each dilution.

Reporting limit for undiluted samples is 1.0ppb (part per billion, micrograms per liter, μ g/L). All quality control parameters were within the acceptance limits. All data is reported with two significant figures.

Bromate (Ion Chromatography)

All surface water and treated samples were analyzed for Bromate (Ion Chromatography) in accordance with EPA 300.1. Surrogates are added to all samples. All quality control parameters were within the acceptance limits with the balance of sample analyzed.

The reporting limit for treated samples is 5.0ppb and for surface samples is 2.0ppb. All data is reported with 2 significant figures.

Qualifiers

1,4-Dioxane Qualifier Codes:

Qualifier Code	Description
nd:	The compound was analyzed for, but was not detected at or above the detection limit indicated.
D:	Analyte value quantified from a dilution, reporting limit is raised to reflect dilution.
E:	The compound result is greater than the upper quantitation limit in the associated calibration curve, reported as estimate.
В:	The sample vials contained air bubbles larger than 5mm, which may affect compound results.
J:	The compound was positively identified; the associated numerical value is the approximate concentration.
M:	Matrix effects, sample required dilution.
R:	The reported value is unusable and rejected due to variance from quality control criteria.
V:	The reported value is considered estimated due to variance from quality control criteria.
- H:	Sample was analyzed past 14 day hold time, but within 45 days.
0:	Samples analyzed in outside laboratory.
S:	Samples split with DEQ.

Bromate Qualifier Codes:

Description
npound was analyzed for, but was not detected at or above the detection limit indicated.
npound result is greater than the upper quantitation limit in the associated calibration curve.
npound was positively identified; the associated numerical value is the approximate concentration.
orted value is unusable and rejected due to variance from quality control criteria.
orted value is considered estimated due to variance from quality control criteria.
was analyzed past 28 day hold time

Analyst: Susan E.O. Peters	Susan EDRetees	Date: 04-06-20
Report Checked by: Laurel Beye	, Soul Beyn	Date: 4/6/20



Sample Analysis Report

March, 2020

642 South Wagner Road Ann Arbor, MI 48103-9019 US 734.436.4025 phone

Analyst Initials: <u>७७०२</u> Date: <u>५-८-२०</u>

						8. 	
1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
				÷			
nd	1.0						0
							5
120	1.0						
840	10.0						D
480	10.0			52. 			D
290	10.0						D
							¥.
240	10.0						D
590	10.0						D
360	10.0				2		D
710	10.0						D
450	10.0						D
740	25.0						D
					2		
	nd 120 840 480 290 240 590 360 710 450	nd 1.0 120 1.0 840 10.0 480 10.0 290 10.0 240 10.0 590 10.0 360 10.0 710 10.0	nd 1.0 120 1.0 840 10.0 480 10.0 290 10.0 240 10.0 360 10.0 710 10.0 450 10.0	nd 1.0 120 1.0 840 10.0 480 10.0 290 10.0 240 10.0 360 10.0 710 10.0 450 10.0	nd 1.0 120 1.0 840 10.0 480 10.0 290 10.0 240 10.0 590 10.0 360 10.0 710 10.0	nd 1.0 120 1.0 840 10.0 480 10.0 290 10.0 290 10.0 360 10.0 710 10.0	nd 1.0

PLS Page 3 of 8

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	Qualifier(s)
C3	20 - C							
MW-125-03-09-20-13:03-1	220	10.0						0, D
MW-127s-03-09-20-09:11-1	nd	1.0						0
MW-128s-03-09-20-10:58-1	nd	1.0						0
MW-18d-03-03-20-10:43-1	40	1.0						
MW-28-03-05-20-11:20-1	nd	1.0						
MW-34s-03-02-20-10:05-1	nd	1.0						
MW-35-03-02-20-11:03-1	2.8	1.0						
MW-37-03-09-20-12:00-1	300	10.0						0, D
MW-38s-03-02-20-10:10-1	nd	1.0						V
MW-38s-03-26-20-11:00-1	nd	1.0						V
D0			•		· · · · · · · · · · · · · · · · · · ·			
A2 Cleaning Supply-03-05-20-12:20-1	65	1.0						
MW-53d-03-06-20-10:10-1	nd	1.0	4					0
MW-53i-03-06-20-11:17-1	30	1.0						0
MW-53s-03-06-20-09:54-1	nd	1.0						0
MW-93-03-13-20-12:42-1	nd	1.0						0
D2	1							
373 Pinewood Shallow-03-24-20-10:15-1	210	10.0						D
465 Dupont-03-04-20-09:48-1	840	10.0						D
MW-11d-03-02-20-12:54-1	300	10.0						D
MW-133i-03-13-20-11:14-1	2	1.0						0
MW-133s-03-13-20-11:58-1	2	1.0						0
MW-17-03-06-20-12:05-1	280	10.0						0, D
MW-38d-03-02-20-10:14-1	41	1.0						
MW-4d-03-02-20-14:09-1	320	10.0						D

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	Qualifier(s)
MW-56s-03-05-20-10:38-1	68	1.0						
E								
MW-103s-03-10-20-09:50-1	75	1.0			-			0
MW-112i-03-10-20-09:15-1	9	1.0						0
MW-112s-03-10-20-08:50-1	nd	1.0						0
MW-115-03-04-20-12:49-1	500	10.0						D
MW-116-03-04-20-11:23-1	460	10.0						D
MW-127d-03-09-20-09:37-1	nd	1.0						0
MW-128d-03-09-20-11:06-1	nď	1.0						0
MW-133d-03-13-20-10:05-1	4	1.0						0
MW-30d-03-03-20-12:35-1	170	10.0					1	D
MW-56d-03-05-20-09:24-1	nd	1.0						
MW-64-03-04-20-14:20-1	43	1.0						
MW-66-03-02-20-11:35-1	1.9	1.0						
MW-72d-03-03-20-13:53-1	200	10.0						D
MW-76i-03-10-20-11:07-1	100	2.0						0
MW-76s-03-10-20-12:17-1	280	10.0						O, D
MW-84s-03-24-20-09:25-1	150	1.0						
SW								
MW-10d-03-03-20-14:12-1	390	10.0						D
Surface Water	,		•		A			
Not Applicable			***************************************					
HC/HR-03-02-20-07:45-1			nd	2.0				
HC/HR-03-03-20-07:45-1			nd	2.0				1
HC/HR-03-04-20-07:45-1			nđ	2.0				
HC/HR-03-05-20-07:45-1			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	Qualifier(s)
HC/HR-03-06-20-07:35-1			nd	2.0				
HC/HR-03-09-20-07:45-1			nd	2.0				0
HC/HR-03-10-20-07:55-1			nd	2.0				0
HC/HR-03-11-20-07:50-1			nd	2.0				0
HC/HR-03-12-20-07:35-1			nd	2.0				0
HC/HR-03-13-20-07:50-1			nd	2.0				0
HC/HR-03-16-20-07:40-1			nd	2.0				0
HC/HR-03-17-20-07:50-1			nd	2.0				
HC/HR-03-18-20-07:40-1			nd	2.0				
HC/HR-03-19-20-07:50-1			nd	2.0				
HC/HR-03-20-20-07:50-1			nd	2.0				0
HC/HR-03-23-20-07:30-1			nd	2.0				
HC/HR-03-25-20-10:30-1			nd	2.0				
HC/HR-03-26-20-07:45-1			nd	2.0				
HC/HR-03-27-20-07:55-1			nd	2.0				
HC/HR-03-30-20-08:00-1			nd	2.0				
HC/HR-03-31-20-07:55-1			nd	2.0				
Treatment System								
OUTFALL-03-01-20-2			5.7	5.0				
OUTFALL-03-01-20-1	6.0	1.0						
OUTFALL-03-02-20-2			7.3	5.0				
OUTFALL-03-02-20-1	6.1	1.0						
OUTFALL-03-03-20-2			6.4	5.0				
OUTFALL-03-03-20-1	5.6	1.0						
OUTFALL-03-04-20-2			7.7	5.0				
OUTFALL-03-04-20-1	5.9	1.0						
OUTFALL-03-05-20-1	5.8	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	Qualifier(s)
OUTFALL-03-05-20-2			5.6	5.0				
OUTFALL-03-08-20-1	4	1.0		12				0
OUTFALL-03-08-20-2			nd	2.0			2	
OUTFALL-03-09-20-1	6	1.0						0
OUTFALL-03-09-20-2			7.7	5.0				
OUTFALL-03-10-20-1	6	1.0						0
OUTFALL-03-10-20-2			8.8	5.0				
OUTFALL-03-11-20-1	6	1.0						0
OUTFALL-03-11-20-2			8.7	5.0				
OUTFALL-03-12-20-1	6	1.0						0
OUTFALL-03-12-20-2			8.2	5.0				
OUTFALL-03-15-20-1	6	1.0						0
OUTFALL-03-15-20-2			8.8	5.0				
OUTFALL-03-16-20-1	5.1	1.0						
OUTFALL-03-16-20-2	1		8.8	5.0				
OUTFALL-03-17-20-1	4.9	1.0						
OUTFALL-03-17-20-2			8.6	5.0			0	
OUTFALL-03-18-20-1	4.6	1.0						
OUTFALL-03-18-20-2			8.7	5.0				
OUTFALL-03-19-20-1	5.2	1.0						
OUTFALL-03-19-20-2			8.0	5.0				
OUTFALL-03-22-20-1	4.9	1.0						
OUTFALL-03-22-20-2			7.7	5.0				
OUTFALL-03-24-20-1	5.0	1.0						
OUTFALL-03-24-20-2			9.0	5.0				
OUTFALL-03-25-20-1	4.2	1.0						
OUTFALL-03-25-20-2			8.6	5.0				

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	Qualifier(s)
OUTFALL-03-26-20-1	4.2	1.0						
OUTFALL-03-26-20-2			8.5	5.0				
OUTFALL-03-29-20-1	4.7	1.0						
OUTFALL-03-29-20-2			8.6	5.0				
OUTFALL-03-30-20-1	4.5	1.0						
OUTFALL-03-30-20-2			8.1	5.0				
OUTFALL-03-31-20-1	4.5	1.0	27					
OUTFALL-03-31-20-2			7.8	5.0				
Red Pond-03-02-20-08:00-1	380	10.0						D
Red Pond-03-09-20-08:35-1	340	10.0						0, D
Red Pond-03-16-20-08:00-1	490	10.0						0, D
Red Pond-03-23-20-07:50-1	390	10.0						D
Red Pond-03-30-20-08:30-1	370	10.0						D

1.4-Dioxane Qualifier Codes:

Qualifier Code	Description
nd:	The compound was analyzed for, but was not detected at or above the detection limit indicated.
D:	Analyte value quantified from a dilution, reporting limit is raised to reflect dilution.
E:	The compound result is greater than the upper quantitation limit in the associated calibration curve, reported as estimate.
В:	The sample vials contained air bubbles larger than 5mm, which may affect compound results.
J:	The compound was positively identified; the associated numerical value is the approximate concentration.
M:	Matrix effects, sample required dilution.
R:	The reported value is unusable and rejected due to variance from quality control criteria.
V:	The reported value is considered estimated due to variance from quality control criteria.
H:	Sample was analyzed past 14 day hold time, but within 45 days.
0:	Samples analyzed in outside laboratory.
S:	Samples split with DEQ.



Data Transmittal Cover Page

Project Name:	Pall Corporation
ATS Project Number:	G001-002
ATS Report Number(s):	Org_SRF_March

Project Description: This data report contains the results of 36 water samples, received by ATS between 3/9/20 and 3/20/20, to be analyzed for 1,4-Dioxane and Bromate.

We certify that the sample analyses for this report have been conducted in accordance with guidelines provided In the referenced standard test method, and are consistent with detailed procedures described in a written Standard Operating Procedure specific to the ATS Laboratories, as required by USEPA. Laboratory data sheets, SOPa, and ADA(C information are available for inspection and audit at the laboratory upon request. Unless specifically noted on the data report, all applicable sample preservation and holding time requirements have been met.

Recipient	Ms. Sue Peters		Emall: FAX Number:	Sue_Peters@Pall.com
No. of Pag	ges (including cover pg.):	67		
From:	Sarah Stubblefield	Emall:	Sarah, Stubblefie	d@AnnArborTechnicalServices.com
	Senior Chemist / Lab Manager	FAX Number:	734-995-3731	
Additional	Message:			
Additional	Message:			

IF YOU DO NOT RECEIVE ALL PAGES OF THIS TRANSMITTAL, PLEASE CALL 734-995-0995.

This material is intended only for the use of the individual or entry to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient or the agent responsible for defivering this material to the intended recipient, you are hereby notified that any dissimitant, dissiblend on copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone. Thank you. X-1G001-002.201/Data_Transmittal Cover Page SLS

Client Sample Identification Sample Date		Requested Turn Around Time	Analysis	Matrix	
Received 3/12/20					
Outfall	3/11/20	Urgent	1,4-Dioxane	Treated Water	
HC/HR	3/12/20	Urgent	Bromate	Surface Water	
Received 3/13/20					
Outfall	3/12/20	Urgent	1,4-Dioxane	Treated Water	
HC/HR	3/13/20	Urgent	Bromate	Surface Water	
Received 3/16/20					
Outfall 001	3/15/20	Urgent	1,4-Dioxane	Treated Water	
HCAHR	3/16/20	Urgent	Bromate	Surface Water	
RP	3/16/20	Standard	1,4-Dioxane	Ground Water	
MW-133D	3/13/20	Standard	1,4-Dioxane	Ground Water	
MW-1331	3/13/20	Standard	1,4-Dioxana	Ground Water	
MW-133S	3/13/20	Standard	1,4-Dioxane	Ground Water	
MW-93	3/13/20	Standard	1,4-Dioxane	Ground Water	
Received 3/20/20					
Outfall 001	3/19/20	Urgent	1,4-Dioxane	Treated Water	
HC/HR	3/20/20	Urgent	Bromate	Surface Water	
Test	3/20/20	Standard	Bromate	Water	

Upon receipt, samples were scheduled for the following analyses:

A	halysis	Number of Samples	
	1,4-Dioxane by US EPA 1624	 28 + 7 Matrix Spike / 7 Matrix Spike Duplic 	ale

 Bromate by ATS 300.1 MOD 	
--	--

8 + 7 Matrix Spike / 7 Matrix Spike Duplicate

Sample Receipt, Chain of Custody Records, and Holding Times

Samples were delivered directly to ATS by Pall Corporation staff. Samples were received with proper chain of custody records included. Sample condition and anomalies, if any, are presented in the "Chain of Custody and Sample Receipt Documentation" section of this report.

Data Review and Approval

All data contained in this report have been generated in accordance with guidelines provided in the referenced standard test method, and are consistent with detailed procedures described in a written standard operating procedures (SOPs) specific to the ATS Laboratory, as required by US EPA. All data are peer and management reviewed to ensure compliance with the above referenced SOP's and project specifications. In addition all data conform to the laboratory's quality Assurance / Quality Control Manuals.

A single QA/QC batch is defined as no more than 20 samples excluding method blanks (MB, LRB), fortified blanks (BS, LFB, LCS), matrix spikes (MS, SPK), and duplicates whether spiked or native (MSD, SPK DUP, DUP, LR).





CASE NARRATIVE

ATS Project Number: G001-002 Report Date: 3/24/20 SRF / SDG Numbers: 0309201,0309202,0310201,0310202,0311201,0311202,0312201, 0313201,0316201,0316202, 0320201, 0320202

Case Narrative Summary

This case narrative applies to the following 36 samples that were received at Ann Arbor Technical Services, Inc. (ATS) between 3/9/20 and 3/20/20, and associated matrix-specific QA/QC:

Client Sample Identification	Sample Date	Requested Turn Around Time	Analysis	Matrix
Received 3/9/20				
Outfall 001	3/8/20	Urgent	1,4-Dloxane	Treated Wate
HC/HR	3/9/20	Urgent	Bromate	Surface Water
MW-53s	3/6/20	Standard	1,4-Dioxane	Ground Water
MW-53d	3/6/20	Standard	1,4-Dioxane	Ground Water
MW-53i	3/6/20	Standard	1,4-Dioxane	Ground Water
MW-17	3/6/20	Standard	1,4-Dioxane	Ground Water
Received 3/10/20				
Outfall	3/9/20	Urgent	1,4-Dioxane	Treated Water
HC/HR	3/10/20	Urgent	Bromate	Surface Water
RP	3/9/20	Standard	1,4-Dioxane	Ground Water
MW-127s	3/9/20	Standard	1,4-Dioxane	Ground Water
MW-127d	3/9/20	Standard	1,4-Dioxane	Ground Water
MW-128s	3/9/20	Standard	1,4-Dioxane	Ground Water
MW-128d	3/9/20	Standard	1,4-Dioxane	Ground Water
MW-37	3/9/20	Standard	1,4-Dioxane	Ground Water
MW-125	3/9/20	Standard	1,4-Dioxane	Ground Water
Received 3/11/20				
Outfall	3/10/20	Urgent	1,4-Dioxane	Treated Water
HC/HR	3/11/20	Urgent	Bromate	Surface Water
MW-112s	3/10/20	Standard	1,4-Dioxane	Ground Water
MW-1121	3/10/20	Standard	1,4-Dioxane	Ground Water
MW-103s	3/10/20	Standard	1,4-Dioxane	Ground Water
MW-76i	3/10/20	Standard	1,4-Dloxane	Ground Water
MW-76s	3/10/20	Standard	1.4-Dioxane	Ground Water

G001-002.20/CN_March.doc

Consultants in Chemistry & Environmental Science 290 South Wagner Road, Ann Arbor, Michigan 48103 Tel 734/995-0995 Fax 734/995-3731

Data Deliverables

This data package constitutes a Level II package; other data report packages (Level I, Level IV DVP, EPA R5 EDD) are available upon request. There were no hardcopy data summary sheets generated for this project. <u>Sample</u> Analysis

<u>J.4-Dimanne Analysis (IGC/MS)</u>: Samples were analyzed in accordance with US EPA method 1624 (Volatile Organic Compounds by Isotope Dilution Gas Chromatography – Mass Spectrometry). An initial calibration with at least five levels was used to quantilate 1,4-Dionane. Samples were reported to project specific reporting limits.

Bromate Analysis (IC): Samples were analyzed in accordance with ATS modified method 300.1 (Determination of Inorganic Anions in Drinking Waters by Ion Chromatography). An initial calibration with at least five levels was used to quantitate Bromate. Samples were reported to project specific reporting limits.

Anomalies Noted: None

Analytical QA/QC Summary

Calibration Verification

Method calibration was verified through the running of a mid-level initial calibration verification (CV) standard at a frequency of every 24 hours (1,4-Dioxane) or 10 samples (bromate). All verification standards met the acceptance criteria with the following exceptions: None

Instrument Blanks

Instrument blanks were analyzed at a frequency of every 24 hours (1,4-Dioxane) or 10 samples (bromate). All blanks met the acceptance criteria with the following exceptions: • None

QA/QC Batch Summary

Laboratory Reagent Blanks

A laboratory reagent blank (LRB) was analyzed with each QA/QC batch. The LRB's met the acceptance criteria with the following exceptions: • None



Laboratory Fortified Blanks and Matrix Spikes

A laboratory fortified blank (LFB) / laboratory control sample (LCS) was analyzed with each QA/QC batch. The LCSLFB's met the acceptance criteria with the following exceptions: • None

A matrix spike (MS) and matrix spike duplicate (MSD) was analyzed with each QA/QC batch. The MS/MSD met the acceptance criteria with the following exceptions:

Sample ID	Constituent	Percent Recovery	Acceptance Limits
Outfall 3/8/20 Matrix Spike Duplicate	1.4-Dioxane	79.2	80-120%

Matrix Duplicates

A replicate analysis was analyzed with each QA/QC batch. All replicates met the acceptance criteria with the following exceptions:

Sample ID	Constituent	Percent Difference	Acceptance Limits
Outfall 3/8/20	1.4-Dioxane	24.2	<20%

Sample Dilutions

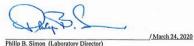
Samples containing compounds at concentrations above the initial calibration curve were diluted and reanalyzed for those compounds. The following samples were diluted for 1,4-Dioxane:

/ March 24, 2020

• MW-17 3/6/20	• MW-76I 3/10/20
• RP 3/9/20	 MW-76S 3/10/20
• MW-37 3/9/20	• RP 3/16/20
• MW-125 3/9/20	

Markalitong

Mark T. DeLong (Quality Assurance Coordinator)



Philip B. Simon (Laboratory Director) 6001-002.20/CN_March.doc



AS	llu	290 South Wagner Road Ann Arbor, Michigan 48103 Tel. 734/995-0995 Fax. 734/995-3731 Michigan Laboratory ID: 9604
ANY MUCH TOWNER IN PAR	FT. MC	Wisconsis Laboratory ID: 998321720

Inorganic Analysis Data Summary Sheet

				•
For: Ms. Sue Peters		ATS Project:	Pall Corporation	#G001-002
Pall Corporation		Report Date:	3/24/20	
642 South Wagner Road		ATS SRF:	0320202	
Ann Arbor, MI 48103				
Sample Identification:	Test			
Sample Date:	3/20/20			
Sample Time:	na			
Sampled By:	Client			
Laboratory Receipt Date:	3/20/20			
Sample Matrix:				

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Inorganic Analysis		-					
Bromate	ATS 300.1 MOD	mg/L	<0.002	0.002*	3/20/20	15:41	SLS

Comments All methods reference USEPA methods unless otherwise noted na - Indicates not available / applicable. "Elevated reporting limit due to matrix interference.

X\G001-002.20\ORG_SRF_MARCH

Date

rev. 3/24/20

Organic Analysis

Michigan Laborat	gan 48103					Drganic / Summa	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/9/20 Updated 3	24/20		
642 South Wagner Road			ATS SRF:	0309201 (Urgent)			
Ann Arbor, MI 48103 Sample Identification:	Outfall 001						
Sample Date:	3/8/20						
Sample Time:	na						
Sampled By:	Client						
Laboratory Receipt Date:	3/9/20						
Sample Matric	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.004	0.001	3/9/20	13:34	JEB

Asilly	290 South Wegner Road Ann Arbor, Michigan 48103 Tel, 734'995-0998 Fax, 734'995-3731 Michigan Laboratory ID: 9063 Wisconsin Laboratory ID: 998321720
--------	---

For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

		Data Summary Sheet
ATS Project:	Pall Corporation	#G001-002
Report Date:	3/24/20	
ATS SRF:	0309202	

Sample Identification:	MW-53S						
Sample Date:	3/6/20						
Sample Time:	9:54 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/9/20						
Sample Matrix:	Water						
Paramotor	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	3/9/20	19:12	JEB

Comments All methods reference USEPA methods unless otherwise noted, na - Indicates not available / applicable. Sample analyzed at native pH.

Comments All methods reference USEPA methods unless otherwise noted, na - Indicates not available / applicable.

rev. 3/24/20

Michigan Laborati	Fax. 734/995-3731					organic / Summai	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-00
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0309202			
Ann Arbor, MI 48103	MW-53d						
Sample Identification:	MYY-530						
Sample Date:	3/6/20						
Sample Time:	10:10 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/9/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzec By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	3/9/20	19:56	JEB

rev. 3/24/20



Organic Analysis Data Summary Sheet

For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0309202			
Ann Arbor, MI 48103							
Sample Identification:	MW-53i						
Sample Date:	3/6/20						
Sample Time:	11:17 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/9/20						
Sample Matrix:	Water						
arameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By

Parameter	Method	Units	Result	Reporting Limit	Date	Time	Ву
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.036	0.001	3/9/20	20:40	JEB

Comments Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X1G001-00220/DRG_SRF_MARCH

ساللتح Ann Arbo Tel. 7341 **Organic Analysis** Michigan 4 5-0995 Fax. 115-3731 Data Summary Sheet ATS Project: Pail Corporation Report Date: 3/24/20 ATS SRF: 0309202 For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103 #G001-002 Sample Identification: MW-17 Sample Date: Sample Time: Sampled By: 3/6/20 12:05 PM Client 3/9/20 Laboratory Receipt Date: Sample Matrix: Water Analysis Date Analysis Time Analyzed Reporting Limit Result Parameter Organic Analysis 1,4-Dioxane Method Units By EPA 1624 mg/L 0.26 0.01 3/9/20 21:23 JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X1G001-002 20/ORG_SRF_MARCH

rev. 3/24/20

<u>ما المحمد</u> Ann Arbo Tel. 734/1 oligan 4 995 Fax 195-3731

Organic Analysis Data Summary Sheet

For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

Je Peters		ATS Project:	Pall Corporation	#G001-002
orporation		Report Date:	3/10/20 Updated 3/24/20	
outh Wagner Road		ATS SRF:	0310201 (Urgeni)	
rbor, MI 48103				
Sample Identification:	Outfall			
a Data:	3/9/20			

- Analysis Analysis Analyzed					
Sample Matrix: Water	Laboratory Receipt Date:	3/10/20 Water			
	Sampled By:	Client			
Laboratory Receipt Date: 3/10/20	Sample Time:	na			
Sampled By: Client Laboratory Receipt Date: 3/10/20	Sample Date:	3/9/20			

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X1G001-00220/ORG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. Sample analyzed at native pH.

rev. 3/24/20

	290 South Wagner Road Ann Arbor, Michigan 48103 Tel. 734995-3995 Fax. 734996-3731 Michigan Laboratory ID: 996321720 Wiscensin Laboratory ID: 996321720
--	--

Michigan Laborat	pan 48103 Fax, 734/995-3731					Organic / Summa	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0310201			
Ann Arbor, MI 48103							
Sample Identification:	RP						
Sample Date:	3/9/20						
Sample Time:	8:35 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/10/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.34	0.01	3/10/20	13:12	JEB



r: Ms. Sue Peters		ATS Project:	Pall Corporation	#G001-002
Pall Corporation		Report Date:	3/24/20	
642 South Wagner Road		ATS SRF:	0310202	
Ann Arbor, MI 48103				
Sample Identification:	MW-127s			
Sample Date:	3/9/20			
Sample Time:	9:11 AM			
Sampled By:	Client			
Laboratory Receipt Date:	3/10/20			
Sample Matrix:	Water			

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	3/10/20	15:58	JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

290 South W

X1G001-002.20/DRG_SRF_M/RCH

rev. 3/24/20

Ann Arbor, Michig Tel, 734/996-0995 Wieconsin Labora Wieconsin Labora	Fax, 734/995-3731					Organic / Summai	Analysis ry Sheet
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0310202			
Ann Arbor, MI 48103							
Sample Identification:	MW-127d						
Sample Date:	3/9/20						
Sample Time:	9:37 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/10/20						
Sample Matrix	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis		Jinto					
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	3/10/20	16:42	JEB

20 South Wegner Read Ann Abbr, Michigan 44103 Ann Abbr, Michigan 44103 Ann Abbr, Michigan Alloss Ann Abbr, Michigan Alloss Michigan Laboratory Di 9903 Michigan Laboratory

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

Organic Analysis Data Summary Sheet

rev. 3/24/20

#G001-002

For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

X1G001-002.20/ORG_SRF_MARCH

Als on.	0510202	
ATS SRE	0310202	
Report Date:	3/24/20	
ATS Project:	Pall Corporation	_
	Report Dale: ATS SRF:	Report Date: 3/24/20

Sample Date: Sample Time: Sampled By: Laboratory Receipt Date: Sample Matrix: 3/9/20 10:58 AM Client 3/10/20 Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	3/10/20	17:25	JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

Comments All methods reference USEPA methods unless otherwise noted na - Indicates not available / applicable.

Michigan Laborat	pan 48103 Fax, 734/995-3731					Organic / Summa	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0310202			
Ann Arbor, MI 48103							
Sample Identification:	MW-128d						
Sample Date:	3/9/20						
Sample Time:	11:06 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/10/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis			a sa sa sa sa sa sa sa sa				
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	3/10/20	18.09	JEB



For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

ATS Project: Pall Corporation Report Date: 3/24/20 ATS SRF: 0310202 #G001-002

Sample Identification:	MW-37						
Sample Date:	3/9/20						
Sample Time:	12:00 PM						
Sampled By:	Client						
Laboratory Receipt Date:	3/10/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis			-				
1,4-Dioxane	EPA 1624	mg/L	0.30	0.01	3/10/20	18:53	JEB

Comments	
All methods reference USEPA methods unless otherwise noted.	
na - Indicates not available / applicable.	

X10001-002.20/DRG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X1G001-002.20/ORG_SRF_MARCH

rev. 3/24/20

Michigan Laborat	pan 48103 Fax, 734/995-3731						Analysis ry Sheet
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0310202			
Ann Arbor, MI 48103							
Sample Identification:	MW-125						
Sample Date:	3/9/20						
Sample Time:	1:03 PM						
Sampled By:	Client						
Laboratory Receipt Date:	3/10/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.22	0.01	3/10/20	19.37	JEB

A CANANA AND AND AND AND AND AND AND AND AN	299 South Wagner Road Ann Arbor, Michigan 48103 Tel, 734/95-0998 Fax, 734/995-3731 Michigan Laboratory ID: 9644 Wisconsin Laboratory ID: 998321729
---	--

Organic Analysis Data Summary Sheet 002

For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

ATS Project	Pall Corporation	#G001-002
Report Date	3/11/20 Updated 3/24/20	
ATS SRE:	0311201 (Urgent)	

Sample Identification:	Outfall						
Sample Date:	3/10/20						
Sample Time:	na						
Sampled By:	Client						
Laboratory Receipt Date:	3/11/20						
Sample Matrix	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.006	0.001	3/11/20	11:41	JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

rev. 3/24/20

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. Sample analyzed at native pH.

Michigan Laborat	Fax, 734/995-3731					Organic / Summa	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0311202			
Ann Arbor, MI 48103							
Sample Identification:	MW-112s						
Sample Date:	3/10/20						
Sample Time:	8:50 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/11/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	3/11/20	14:35	JEB



For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

ATS Project: Pall Corporation Report Date: 3/24/20 ATS SRF: 0311202 #G001-002

Sample Identification:	MW-112i						
Sample Date:	3/10/20						
Sample Time:	9:15 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/11/20						
Sample Matric	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis			-				-
1,4-Dioxane	EPA 1624	mg/L	0.009	0.001	3/11/20	15:27	JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X10001-002.20/ORG_SRF_MARCH

rev. 3/24/20

Michigan Laborat	pan 48103 Fax, 734/995-3731					Organic / Summa	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0311202			
Ann Arbor, MI 48103							
Sample Identification:	MW-103s						
Sample Date:	3/10/20						
Sample Time:	9:50 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/11/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.075	0.001	3/11/20	16:11	JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X1G001-002.20/DRG_SRF_MARCH

230 South Wagner Read Ann Arbor, Michigan 48103 Michigan Laboratory ID: 8004

Organic Analysis Data Summary Sheet

rev. 3/24/20

For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

ue Peters		ATS Project:	Pall Corporation	#G001-002
orporation		Report Date:	3/24/20	
outh Wagner Road		ATS SRF:	0311202	
rbor, MI 48103				
Sample Identification:	MW-76i			
e Date:	3/10/20			
e Time:	11:07 AM			

method	onits	- Nosult				By
Method	Units	Result	Reporting Limit	Analysis	Analysis	Analyzed By
Water						
3/11/20						
Client						
11:07 AM						
3/10/20						
	11:07 AM Client 3/11/20	11:07 AM Client 3/11/20 Water	11:07 AM Client 3/11/20 Water	11:07 AM Client 3/11/20 Water	11:07 AM Client 3/11720 Water Reporting Limit Analysis	11:07 AM Client 3/11/20 Water Reporting Limit Analysis Analysis

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X1G001-002.20/ORG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted, na - Indicates not available / epplicable.

X1G001-002.20/ORG_SRF_MARCH

rev. 3/24/20

- Michigan Laborat	pan 48103 Fax, 734/995-3731					Organic A Summai	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0311202			
Ann Arbor, MI 48103							
Sample Identification:	MW-76s						
Sample Date:	3/10/20						
Sample Time:	12:17 PM						
Sampled By:	Client						
Laboratory Receipt Date:	3/11/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.28	0.01	3/11/20	17:39	JEB

Asille	290 South Wagner Road Ann Arbor, Michigan 48103 Tel, 734/986-0915 Fax, 734/986-3731 Michigan Laboratory ID: 9604 Wisconsin Laboratory ID: 998321720
--------	---

For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/12/20 Updated 3	3/24/20		
642 South Wagner Road			ATS SRF:	0312201 (Urgent)			
Ann Arbor, MI 48103							
Sample Identification:	Outfall						
Sample Date:	3/11/20						
Sample Time:	na						
Sampled By:	Client						
Laboratory Receipt Date:	3/12/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Irganic Analysis	-						
1.4-Dioxane	EPA 1624	mg/L	0.006	0.001	3/12/20	11:27	JEB

Comments	
All methods reference USEPA methods unless otherwise noted.	
na - Indicates not available / applicable.	

X1G001-002.20/DRG_SRF_MARCH

rev. 3/24/20

Michigan Laborat	pan 48103 Fax, 734/995-3731					Organic / Summai	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/13/20 Updated 3	3/24/20		
642 South Wagner Road			ATS SRF:	0313201 (Urgent)			
Ann Arbor, MI 48103							
Sample Identification:	Outfall						
Sample Date:	3/12/20						
Sample Time:	na						
Sampled By:	Client						
Laboratory Receipt Date:	3/13/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis	-	-					
1,4-Dioxane	EPA 1624	mg/L	0.006	0.001	3/13/20	11.07	JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. Semple analyzed at native pH.

X1G001-002.20/ORG_SRF_MARCH

rev. 3/24/20



Organic Analysis Data Summary Sheet #G001-002

For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

ATS Project:	Pall Corporation	#G001-002
Report Date:	3/16/20 Updated 3/24/20	
ATS SRF:	0316201 (Urgent)	

Sample Identification:	Outfall						
Sample Date:	3/15/20						
Sample Time:	na						
Sampled By:	Client						
Laboratory Receipt Date:	3/16/20						
Sample Matric	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.006	0.001	3/16/20	11:22	JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. Sample analyzed at native pH.

X1G00140220/DRG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. Sample analyzed at native pH.

X1G001-00220/CR0_SRF_MARCH

Michigan Laborat	pan 48103 Fax, 734/995-3731					Organic A Summai	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0316201			
Ann Arbor, MI 48103							
Sample Identification:	RP						
Sample Date:	3/16/20						
Sample Time:	8:00 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/16/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.49	0.01	3/16/20	13:34	JEB



For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103 ATS Project: Pall Corporation Report Date: 3/24/20 ATS SRF: 0316202 #G001-002 Sample Identification: MW-133D Sample Date: Sample Time: Sampled By; Laboratory Receipt Date: Sample Matrix: 3/13/20 10:05 AM Client 3/16/20 Water Analysis Date Analysis Analyzed Time By Reporting Limit Parameter Organic Analysis 1,4-Dioxane Method Result Units JEB EPA 1624 14:18 0.004 3/16/20 mg/L 0.001

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X 1G001-002 20 CRG SRF_MARCH

rev. 3/24/20

Michigan Laborat	pan 48103 Fax, 734/995-3731					Organic / Summa	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0316202			
Ann Arbor, MI 48103							
Sample Identification:	MW-1331						
Sample Date:	3/13/20						
Sample Time:	11:14 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/16/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis		-					
1,4-Dioxane	EPA 1624	mg/L	0.002	0.001	3/16/20	15:01	JEB

X1G001-002.20/ORG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

Sto South Wegner Read An Adar, Michigan 48103 Ter 734096-098 Fax 734096-3731 Michigan 48103

Organic Analysis Data Summary Sheet

rev. 3/24/20

#G001-002

For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

Sample Identification:	MW-133S						
Sample Date:	3/13/20						
Sample Time:	11:58 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/16/20						
Sample Matrix	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.002	0.001	3/16/20	15:45	JEB

ATS Project: Pall Corporation Report Date: 3/24/20 ATS SRF: 0316202

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

XVG001-002.20/ORG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.

X1G001-00220/ORG_SRF_MARCH

rev. 3/24/20

Michigan Laborat	Fax, 734/995-3731					Organic / Summa	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/24/20			
642 South Wagner Road			ATS SRF:	0316202			
Ann Arbor, MI 48103							
Sample Identification:	MW-93						
Sample Date:	3/13/20						
Sample Time:	12:42 PM						
Sampled By:	Client						
Laboratory Receipt Date:	3/16/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis	No.						
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	3/16/20	16:29	JEB

290 South Wagner Road Ann Arbor, Michigan 48103 Tel, 734/985-3731 Michigan Laboratory ID: 9604 Wisconsin Laboratory ID: 998321720

For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/20/20 Updated 3	/24/20		
642 South Wagner Road			ATS SRF:	0320201 (Urgent)			
Ann Arbor, MI 48103							
Sample Identification:	Outfall						
Sample Date:	3/19/20						
Sample Time:	na						
Sampled By:	Client						
Laboratory Receipt Date:	3/20/20						
Sample Matrix:	Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis	terreturn the second						
1,4-Dioxane	EPA 1624	mg/L	0.005	0.001	3/20/20	11:33	JEB

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable.			Comments All methods inference USEPA methods unless otherwise noted. na - Indicates not available / applicable. Sample analyzed at native pH.	
X100014012004R0_88F_MMR01	6 	rev. 3/24/20	X1G001-002.20OR0_ERF_WRCH	rev, 3/24/20

Ann Arbor, Kichi Tel, 734/998-099 INVERSE & GROUP HEADERS					Analysis ry Sheet		
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/9/20 Updated 3/	24/20		
642 South Wagner Road			ATS SRF:	0309201 (Urgent)			
Ann Arbor, MI 48103							
Sample Identification:	HC/HR						
Sample Date:	3/9/20						
Sample Time:	7:45 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/9/20						
Sample Matrix:	Surface Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
norganic Analysis							
Bromate	ATS 300.1 MOD	mo/l	<0.002	0.002*	3/9/20	10.53	SIS

200 South Wegner Read Ann Abor, McNigen 4103 Tot, 745995 South Wegner Read Ann Abor, McNigen 4103 Tot, 745995 South Wegner Read Michigen Laboratory D: 9903(1720 Wiscomini Laboratory D: 9903(1720

Inorganic Analysis Data Summary Sheet ATS Project: Pall Corporation #G001-002

For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

Corporation		Report Date:	3/10/20 Updated 3/24/20	
outh Wagner Road Arbor, MI 48103		ATS SRF:	0310201 (Urgent)	
Sample Identification:	HC/HR			
le Date:	3/10/20			

Bromate	ATS 300.1 MOD	mg/L	<0.002	0.002*	3/10/20	11:27	SLS
Parameter Inorganic Analysis	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Sample Matrix:	Surface Water						
Laboratory Receipt Date:	3/10/20						
Sampled By:	Client						
Sample Time:	7:55 AM						
Sample Date:	3/10/20						

Comments Al melhods reference USEPA melhods unless otherwise noted na - Indicates not available / applicable. "Elevated reporting limit due to metrix interference.

X1G001-00220ORG_SRF_MARCH

a de

X1G001-002.20/ORG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted, na - Indicates not available / applicable, "Elevated reporting limit due to matrix interference.

200 South Ways An Arbor, Mich Tel, 78795-0996 Michigan Laborat Wiscensin Laborat		Inorganic Analysi Data Summary Shee					
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/11/20 Updated	3/24/20		
642 South Wagner Road			ATS SRF:	0311201 (Urgent)			
Ann Arbor, MI 48103							
Sample Identification:	HC/HR						
Sample Date:	3/11/20						
Sample Time:	7:50 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/11/20						
Sample Matrix:	Surface Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Inorganic Analysis							
Bromate	ATS 300.1 MOD	mg/L	<0.002	0.002*	3/11/20	14:02	SLS



For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

Sample Date: Sample Time: Sampled By: Laboratory Receipt Date: Sample Matrix:

Sample Identification: HC/HR

 ATS Project:
 Pall Corporation

 Report Date:
 3/12/20 Updated 3/24/20

 ATS SRF:
 0312201 (Urgent)
 #G001-002 3/12/20 7:35 AM Client 3/12/20 Surface Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Inorganic Analysis Bromate	ATS 300.1 MOD	mg/L	<0.002	0.002*	3/12/20	10:35	SLS

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. "Elevated reporting limit due to matrix interference.

X1G001-002.20/DRG_SRF_MARCH

rev. 3/24/20

Michigan Laborat	gan 48103 Fax, 734/995-3731					organic / Summa	
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/13/20 Updated 3	3/24/20		
642 South Wagner Road			ATS SRF:	0313201 (Urgent)			
Ann Arbor, MI 48103							
Sample Identification:	HC/HR						
Sample Date:	3/13/20						
Sample Time:	7:50 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/13/20						
Sample Matrix:	Surface Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Inorganic Analysis					-		
Bromate	ATS 300.1 MOD	mg/L	<0.002	0.002*	3/13/20	10:33	SLS

X1G001-002.20/ORG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. *Elevated reporting limit due to matrix interference.

200 South Wagner Read Ann Action Microgen 43103 The Action Microgen 43103 Microgen Laboratory ID: 4664 For: Ms. Sue Peters Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

Inorganic Analysis Data Summary Sheet ATS Project: Pall Corporation Report Date: 3/16/20 Updated 3/24/20 ATS SRF: 0316201 (Urgent) #G001-002

rev. 3/24/20

HC/HR						
3/16/20						
8:00 AM						
Client						
3/16/20						
Surface Water						
Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
					-	
ATS 300.1 MOD	mg/L	<0.002	0.002*	3/16/20	10.31	SLS
	3/16/20 8:00 AM Client 3/16/20 Surface Water Method	3/16/20 8.00 AM Client 3/16/20 Surface Water Method Units	3/16/20 8:00 AM Client 3/16/20 Surface Water Method Units Result	3/16/20 8:00 AM Client 3/16/20 Surface Water <u>Method Units Result</u> Reporting Limit	3/16/20 8:00 AM Client 3/16/20 Sulface Water <u>Method</u> <u>Units</u> <u>Result</u> <u>Reporting Limit</u> <u>Analysis</u> <u>Date</u>	3/16/20 8:00 AM Client 3/16/20 Surface Water <u>Method</u> <u>Units_Result</u> <u>Reporting Limit</u> <u>Analysis</u> <u>Analysis</u> <u>Date</u> <u>Time</u>

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. "Elevated reporting Emit due to matrix interference.

X1G001-002.20 ORG_SRF_MARCH

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. "Elevated reporting limit due to matrix interference.

X1G001-002.20/0RG_SRF_MARCH

An Aber, McMun Tel. 7349954095 Michigan Laborat Wisconsin Labora			Inorganic Analys Data Summary She				
For: Ms. Sue Peters			ATS Project:	Pall Corporation			#G001-002
Pall Corporation			Report Date:	3/20/20 Updated :	3/24/20		
642 South Wagner Road			ATS SRF:	0320201 (Urgent)			
Ann Arbor, MI 48103							
Sample Identification:	HC/HR						
Sample Date:	3/20/20						
Sample Time:	7:50 AM						
Sampled By:	Client						
Laboratory Receipt Date:	3/20/20						
Sample Matrix:	Surface Water						
Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
norganic Analysis							
Bromate	ATS 300.1 MOD	mg/L	<0.002	0.002*	3/20/20	11:51	SLS



QC Batch Number: QCORG0309201 Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation Report Date: 3/24/20 #G001-002

Results of QA Samples run concurrently with project samples

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 Outfall 3/8/20 Matrix Spike	0.028 mg/L	0.020 mg/L.	0.023 mg/l.	24.2*
SPIKES and/or QC CHECK SAMPLES				1
Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
#G001-002				
Laboratory Fortified Blank	<0.001 mg/L	0.010 mg/L	.Ngm 000.0	87.3
Outfall 3/8/20 Matrix Spike	0.004 mg/L	0.020 mg/L	0.026 mg/L	106.9
Outfall 3/8/20 Matrix Spike Duplicate	0.004 mg/L	0.020 mg/L	0.020 mg/L	79.2*
BLANK ANALYSIS				
Sample		Analyzed C	oncentration	QC Decision
/G001-002 Laboratory Reagent Blank		<0.001 mg/L		Acceptable
Comments:		Control Limits:		
Calculations performed prior to rounding.		Recoveries		
Outside standard contol limits.			ple Recovery (85 - 115%) 80 - 120%)	

Comments All methods reference USEPA methods unless otherwise noted. na - Indicates not available / applicable. *Elevated reporting limit due to matrix interference.

X1G001-002.20-ORG_SRF_MARCH

rev. 3/24/20



Quality Assurance / Quality Control Data Summary

Batch Number: QCORG0310201	ATS Project: Pall Corporation	#G001-002
Parameter: 1,4-Dioxane (EPA 1624)	Report Date: 3/24/20	
Results of QA Sampl	es run concurrently with project samples	

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 Ouffall 3/9/20 Matrix Spike	0.024 mg/L	0.024 mg/L	0.024 mg/L	3.3
SPIKES and/or QC CHECK SAMPLES			I	
Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
WG001-002 Laboratory Fortified Blank Outfall 3/9/20 Matrix Spike Duplicate Outfall 3/9/20 Matrix Spike Duplicate	<0.001 mg/L 0.006 mg/L 0.006 mg/L	0.010 mg/L 0.020 mg/L 0.020 mg/L	0.009 mg/L 0.024 mg/L 0.024 mg/L	88.9 91.3 87.4
BLANK ANALYSIS				
Sample		Analyzed Concentration		QC Decision
#G001-002 Laboratory Reagent Blank		<0.001 mg/L. Accepta		Acceptable
Comments:		Control Limits:		I
Calculations performed prior to rounding.		Recoveries Laboratory Control San Matrix Spike Recovery Relative Range	nple Recovery (85 - 115%) (80 - 120%)	

Replicates (<20%)

X:\G001-002.20\ORG_SRF_MARCH

ally

Quality Assurance / Quality Control Data Summary

rev 3/24/20

290 South Wagner Road Ann Arbor, Michigan 48103 Tel, 734955098 Fax, 734995-3731 Michigan Laboratory ID: 9804 QC Batch Number: QCORG0311201 Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation Report Date: 3/24/20 #G001-002

Results of QA Samples run concurrently with project samples REPLICATE ANALYSIS

	0.028 mg/L	0.026 mg/L	6.4
SPIKES and/or QC CHECK SAMPLES			
Sample/Analyte Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
#G001-002			
Laboratory Fortified Blank <0.001 mg/L Outfal 3/10/20 Matrix Spile 0.006 mg/L Outfal 3/10/20 Matrix Spile Duplicate 0.008 mg/L	0.010 mg/L 0.020 mg/L 0.020 mg/L	0.010 mg/L 0.025 mg/L 0.026 mg/L	101.5 94.9 103.1

Sample Analyzed Concentration QC Decision #G001-002 Laboratory Reagent Blank <0.001 mg/L Acceptable

Comments: Calculations performed prior to rounding.

Control Limits:

Recoveries Laboratory Control Sample Recovery (85 - 115%) Matrix Spike Recovery (80 - 120%) Relative Range Replicates (<20%)

G001-002 20/ORG SRF MARCH

rev 3/24/20

C Batch Number: QCORG0312201 Parameter: 1,4-Dioxane (EPA 1624)

290 South Wagner Road Ann Arbor, Michigan 48103 Tel. 734/995-0995 Fax. 734/995-3731 Michigan Laboratory ID: 9604 South Laboratory ID: 998321720

Quality Assurance / Quality Control Data Summary

ATS Project: Pall Corporation Report Date: 3/24/20 #G001-002

Relative

Range (percent)

1.1

Results of QA Samples run concurrently with project samples REPLICATE ANALYSIS Sample Replicate #1 Replicate #2 Mean #G001-002 Outfall 3/11/20 Matrix Splke 0.027 mg/L 0.027 mg/L 0.027 ma/L

SPIKES and/or QC CHECK SAMPLES		Calles		Descusion
Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
#G001-002				
Laboratory Fortified Blank	<0.001 mg/L	0.010 mg/L	0.011 mg/L	107.9
Outfall 3/11/20 Matrix Spike	0.006 mg/L	0.020 mg/L	0.027 mg/L	105.4
Outfall 3/11/20 Matrix Spike Duplicate	0.006 mg/L	0.020 mg/L	0.027 mg/L	103.9
BLANK ANALYSIS				
Sample		Analyzed Concentration		QC Decisio
#G001-002 Laboratory Reagent Blank		<0.0	01 mg/L	Acceptable

Results of QA Samples run concurrently with project samples

Replicate #1

0.026 mg/L

Known Concentration

<0.001 mg/L 0.006 mg/L 0.006 mg/L

Comments: Calculations performed prior to rounding. Control Limits: veries Laboratory Control Sample Recovery (85 - 115%)

Matrix Spike Recovery (80 - 120%) elative Ranga Replicates (<20%)

Quality Assurance / Quality Control

Mean

0.026 mg/L

Analyzed

Concentration

0.011 mg/L 0.026 mg/L 0.026 mg/L

ATS Project: Pall Corporation Report Date: 3/24/20

Replicate #2

0.026 mg/L

Spike

Concentration

0.010 mg/L 0.026 mg/L 0.026 mg/L

AS	290 South Wagner Road Ann Arbor, Michigan 48103 Tel. 734/995-0935 Fax. 734/995-3731 Michigan Laboratory ID: 9504 Wisconsin Laboratory ID: 959321720
----	---

Quality Assurance / Quality Control Data Summary

QC Batch Number: QCORG0313201 Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation Report Date: 3/24/20 #G001-002

Results of QA Samples run concurrently with project samples

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 Outfall 3/12/20 Matrix Spike	0.027 mg/L	0.024 mg/L	0.025 mg/L	11.2
SPIKES and/or QC CHECK SAMPLES Sample/Analyto	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
#G001-002 Laboratory Fortified Blank Outfall 3/12/20 Matrix Spike Outfall 3/12/20 Matrix Spike Duplicate	<0.001 mg/L 0.006 mg/L 0.006 mg/L	0.010 mg/L 0.020 mg/L 0.020 mg/L	0.009 mg/L 0.027 mg/L 0.024 mg/L	87.4 103.5 94.5
BLANK ANALYSIS				
Sample		Analyzed Concentration		QC Decision
G001-002 Laboratory Reagent Blank		<0.0	01 mg/L	Acceptable
Comments:		Control Limits:		
Calculations performed prior to rounding.		Recoveries Laboratory Control Sam	nple Recovery (85 - 115%))

Matrix Spike Recovery (80 - 120%) Relative Range Replicates (<20%)

G001-002.20\ORG SRF MARCH

C Batch Number: QCORG0316201

REPLICATE ANALYSIS

Outfall 3/15/20 Matrix Splke

SPIKES and/or QC CHECK SAMPLES

Laboratory Fortified Blank Outfall 3/15/20 Matrix Spike Outfall 3/15/20 Matrix Spike Duplicate

Sample/Analyte

Sample

#G001-002

#G001-002

BLANK ANALYSIS

Comments:

atory Reagent Blank

ns performed prior to rounding.

#G001-002 Lab

Parameter: 1,4-Dioxane (EPA 1624)

Sample

290 South Wagner Road Ann Arbor, Michigan 48103 Tel. 734/995-0995 Fax. 734/995-3731 Michigan Laboratory ID: 9664

rev 3/24/20

Data Summary

#G001-002

Relative

Range (percent)

1.0

Recovery (percent)

112.1 102.1 100.9

QC Decision

Acceptable

rev 3/24/20

X:\G001-002.20\ORG_SRF_MARCH

rev 3/24/20

Wagner Road r, Michigan 48103 15-0995 Fax, 734/995-3731 Laboratory ID: 9604 Tel. 734

Quality Assurance / Quality Control Data Summary

QC Batch Number: QCORG0320201 Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation Report Date: 3/24/20 #G001-002

Results of QA Samples run concurrently with project samples

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 Outfall 3/19/20 Matrix Spike	0.026 mg/L	0.026 mg/L	0.026 mg/L	0.1
SPIKES and/or QC CHECK SAMPLES				
Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
IGO01-002 Laboratory Fortified Blank Outfall 3/19/20 Matrix Spike Outfall 3/19/20 Matrix Spike Duplicate	<0.001 mg/L 0.005 mg/L 0.005 mg/L	0.010 mg/L 0.020 mg/L 0.020 mg/L	0.011 mg/l. 0.026 mg/l. 0.026 mg/l.	114.2 108.1 107.9
BLANK ANALYSIS Sample		Analyzed	Concentration	QC Decision
G001-002 Laboratory Reagent Blank			01 mg/L	Acceptable
Comments:		Control Limits:		
Calculations performed prior to rounding.		Recoveries	nola Recovery (85 - 115%)	

Laboratory Control Sample Recovery (85 - 115%) Matrix Spike Recovery (80 - 120%) Relative Range Replicates (<20%)

Analyzed Concentration

<0.001 mg/L

Control Limits:

Laboratory Control Sample Recovery (85 - 115%)

Matrix Spike Recovery (80 - 120%) Relative Range Replicates (<20%)

G001-002.20\ORG SRF MARCH

rev 3/24/20



Quality Assurance / Quality Control Data Summary

#G001-002

Wagner Hu-; Michigan 48103 15-0995 Fax, 734/995-3731 Laboratory ID: 9504 1 Laboratory ID: 998321720 IC Batch Number: <u>QCORG0309201</u> Parameter: <u>Bromate (ATS 300.1 MOD)</u>

ATS Project: Pall Corporation Report Date: 3/24/20

Results of QA Samples run concurrently with project samples
Results of QA Samples run concurrently with project samples

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
4G001-002 HCAHR 3/9/20 Matrix Spike	0.010 mg/L	0.010 mg/L	0.010 mg/L	3.7
SPIKES and/or QC CHECK SAMPLES Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
KG001-002 Laboratory Fortified Blank HCHIR 3/9/20 Matrix Spike HCHIR 3/9/20 Matrix Spike Duplicate	<0.001 mg/L <0.002 mg/L** <0.002 mg/L**	0.010 mg/L 0.010 mg/L 0.010 mg/L	0.010 mg/l. 0.010 mg/l. 0.010 mg/l.	99.4 98.9 102.6
BLANK ANALYSIS Sample		Analyzed	Concentration	QC Decision
#G001-002 Laboratory Reagent Blank		<0.0	001 mg/L	Acceptable

Calculations performed prior to rounding. ** Elevated reporting limit due to matrix interference

Recoveries Laboratory Control Sample Recovery (80 - 120%) Matrix Splika Recovery (70 - 130%) Relative Range Replicates (<20%) 290 South Wegner Rosd Ann Arbor, Michigan 48103 Tel, 734/995-0985 Fax, 734/995-3731 Michigan Laboratory ID: 9604 Develop ID: 998321720

QC Batch Number: QCORG0310201 Parameter: Bromate (ATS 300.1 MOD)

#G001-002 ATS Project: Pall Corporation Report Date: 3/24/20

Desulte of OA Sa ith project complex

REPLICATE ANALYSIS Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 HC/HR 3/10/20 Matrix Spike	0.008 mg/L	0.009 mg/L	0.008 mg/L	8.4
SPIKES and/or QC CHECK SAMPLES				
Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
#C001-002 Laboratory Fortified Blank HCHR 3/10/20 Matrix Spike HCHR 3/10/20 Matrix Spike Duplicate	<0.001 mg/L <0.002 mg/L* <0.002 mg/L**	0.010 mg/L 0.010 mg/L 0.010 mg/L	0.009 mg/L 0.008 mg/L 0.009 mg/L	93.8 80.8 87.9
BLANK ANALYSIS Sample		Analyzed (Concentration	QC Decision
#G001-002 Laboratory Reagent Blank			001 mg/L	Acceptable
Comments: Calculations performed prior to rounding. ** Elevated reporting limit due to matrix interference.	_	Control Limits: Recoveries Laboratory Control Sar Matrix Spike Recovery	nple Recovery (80 - 120%) (70 - 130%))

Replicates (<20%)

.G001-002.20\ORG_SRF_MARCH

rev 3/20/20 X:\G001-002.20\ORG_SRF_MARCH

#G001-002

A Sille	290 South Wagner Road Ann Arbor, Michigan 48103 Tel. 734/995-0995 Fax. 734/995-3731 Michigan Laboratory ID: 9604 Microsoft Laboratory ID: 9604
Action in Conducting for Wall, 11, No.	Wisconsin Laboratory ID: 998321720

Quality Assurance / Quality Control Data Summary

ATS Project: Pall Corporation Report Date: 3/24/20

C Batch Number: QCORG0311201 Parameter: Bromate (ATS 300.1 MOD)

D	ples run concurrently with project samples
Results of QA Sam	pies run concurrentiy with project samples

REPLICATE ANALYSIS Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 HC/HR 3/11/20 Matrix Spike	0.008 mg/L	0.008 mg/L	0.008 mg/L	0.7
SPIKES and/or QC CHECK SAMPLES	Known	Spike Concentration	Analyzed Concentration	Recovery (percent)
Sample/Analyte	Concentration	Concentration	Concentration	(percent)
#G001-002 Laboratory Fortified Blank HC/HR 3/11/20 Matrix Spike HC/HR 3/11/20 Matrix Spike Duplicate	<0.001 mg/L <0.002 mg/L** <0.002 mg/L**	0.010 mg/L 0.010 mg/L 0.010 mg/L	0.009 mg/L 0.008 mg/L 0.008 mg/L	92.2 83.7 84.2
BLANK ANALYSIS Sample		Analyzed	Concentration	QC Decision
#G001-002 Laboratory Reagent Blank			001 mg/L	Acceptable
Comments:	_	Control Limits:		
Calculations performed prior to rounding. ** Elevated reporting limit due to matrix Interference.		Recoveries Laboratory Control Sa Matrix Spike Recovery	mple Recovery (80 - 120%)

Matrix Spike Recove Relative Range Replicates (<20%) covery (70 - 130%)

290 South Wagner Road Ann Arbor, Michigan 48103 Tel. 734/995-0995 Fax. 734/995-3731 Michigan Laboratory ID: 9804 Jul

Quality Assurance / Quality Control Data Summary #G001-002

rev 3/20/20

QC Batch Number: QCORG0312201 Parameter: Bromate (ATS 300.1 MOD)

ATS Project: Pall Corporation Report Date: 3/24/20

Results of QA Samples run concurrently with project samples

REPLICATE ANALYSIS Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 HCAHR 3/12/20 Matrix Spike ,	0.009 mg/L.	0.010 mg/L	0.009 mg/L	6.2
SPIKES and/or QC CHECK SAMPLES Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
46001-002 Laboratory Fortfied Blank HCAHR 3/12/20 Matrix Spike Duplicate HCAHR 3/12/20 Matrix Spike Duplicate	<0.001 mg/L <0.002 mg/L** <0.002 mg/L**	0.010 mg/L 0.010 mg/L 0.010 mg/L	0.010 mg/L 0.009 mg/L 0.010 mg/L	96.2 90.5 96.2
BLANK ANALYSIS Sample		Analyzed 0	Concentration	QC Decision
#G001-002 Laboratory Reagent Blank			001 mg/L	Acceptable
Comments: Calculations performed prior to rounding. "Elevated reporting limit due to matrix interference.	_	Control Limits: Recoveries Laboratory Control Sar Matrix Spike Recovery	npla Recovery (80 - 120%))

Replicates (<20%)

C Batch Number: QCORG0313201 Parameter: Bromate (ATS 300.1 MOD)

290 South Wagner Road Ann Arbor, Michigan 45103 Tel. 734/995-0995 Fax. 734/995-3731 Michigan Laboratory ID: 9804

998321720

Quality Assurance / Quality Control **Data Summary**

ATS Project: Pall Corporation Report Date: 3/24/20 #G001-002

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 HC/HR 3/13/20 Matrix Spike	0.009 mg/L	0.009 mg/L	0.009 mg/L	5.0
SPIKES and/or QC CHECK SAMPLES	Known	Online		
Sample/Analyte	Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
#G001-002 Laboratory Fortified Blank HCHR 3/13/20 Matrix Spike Duplicate HC/HR 3/13/20 Matrix Spike Duplicate	<0.001 mg/L <0.002 mg/L** <0.002 mg/L**	0.010 mg/L 0.010 mg/L 0.010 mg/L	0.009 mg/L 0.009 mg/L 0.009 mg/L	93.7 89.7 94.3
BLANK ANALYSIS				
Sample		Analyzed	Concentration	QC Decision
/G001-002 Laboratory Reagent Blank		<0.0	01 mg/L	Acceptable
Comments:		Control Limits:		
Calculations performed prior to rounding.	-	Recoveries		
** Elevated reporting limit due to matrix interference.		Laboratory Control San	nple Recovery (80 - 120%)	

Matrix Spike Recovery (70 - 130%) Relative Range Replicates (<20%)

290 South Wagner Road Ann Arbor, Michigan 48103 Tel, 734/995-0995 Fax, 734/995-3731 Tel-Inan Laboratory ID: 9504 ъЩ.

Quality Assurance / Quality Control Data Summary

QC Batch Number: QCORG0316201 Parameter: Bromate (ATS 300.1 MOD)

ATS Project: Pall Corporation Report Date: 3/24/20 #G001-002

Results of QA Samples run concurrently with project samples

321720

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 HCHR 3/16/20 Matrix Spike	0.009 mg/L	0.009 mg/L	0.009 mg/L	4.7
SPIKES and/or QC CHECK SAMPLES Sample/Analyte	Known Concentration	Spike Concentration	Analyzed	Recovery
Sample/Analyte	Concentration	Concentration	Concentration	(percent)
6001-002 Laboratory Fortified Blank HC/HR 3/16/20 Mark Spike HC/HR 3/16/20 Mark Spike Duplicate	<0.001 mg/L <0.002 mg/L** <0.002 mg/L**	0.010 mg/L 0.010 mg/L 0.010 mg/L	0.010 mg/L 0.009 mg/L 0.009 mg/L	99.1 89.5 93.8
BLANK ANALYSIS				
Sample		Analyzed 0	Concentration	QC Decision
Laboratory Reagent Blank		<0.0	01 mg/L	Acceptable
Comments:		Control Limits:		
Calculations performed prior to rounding. ** Elevated reporting limit due to matrix interference.		Recoveries Laboratory Control San	ple Recovery (80 - 120%)	

Laboratory Control Sample Recovery (80 - 120%) Matrix Spike Recovery (70 - 130%) Relative Range Replicates (<20%)

G001-002.20\ORG_SRF_MARCH

rev 3/20/20

X:\G001-002.20\ORG_SRF_MARCH

Tagner Koas Michigan 48103 -0995 Fax, 734/995-3731 aboratory ID: 9604 -aboratory ID: 998321720 Ann Arb Tel. 734/ Michiga **S**IL

Quality Assurance / Quality Control Data Summary

Parameter: Bromate (ATS 300.1 MOD)		ATS Project: F Report Date: 3		#G001-0
Result REPLICATE ANALYSIS	s of QA Samples run concurrent	ntly with project sample:	S	
Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
HG001-002 HC/HR 3/20/20 Matrix Spike	0.009 mg/L	0.009 mg/L	0.009 mg/L	1.2
PIKES and/or QC CHECK SAMPLES				

Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
#G001-002				
Laboratory Fortified Blank	<0.001 mg/L	0.010 mg/L	0.010 mg/L	97.0
C/HR 3/20/20 Matrix Spike <0.002 mg	<0.002 mg/L**	0.010 mg/L	0.009 mg/L	92.5
HC/HR 3/20/20 Matrix Spike Duplicate	<0.002 mg/L**	0.010 mg/L	0.009 mg/L	91.4
BLANK ANALYSIS				
Sample		Analyzed (Concentration	QC Decision
#G001-002 Laboratory Reagent Blank		<0.0	101 mg/L	Acceptable
Comments:		Control Limits:		

Calculations performed prior to rounding. ** Elevated reporting limit due to matrix Interference.

Control Limits: ies Recoveries Laboratory Control Sample Recovery (80 - 120%) Matrix Spike Recovery (70 - 130%) Relative Range Replicates (<20%)

	Hispan And Pachyan Alus 14005 Fee, Tachistaria Admining Ex. 1924 Laboratory Ex. 1912(1912)			CHAIN OF CUSTODY I		U				!							Page 1
ALCTO/HANSE .	:	-404/0K		ÊN Î	31,993	d NFCR	whoe i	D-CTFER	(7ad and	UTMOR	13 16.64	1141)	f splat	4		-	
Pall Corp.			•		Č va		fet to		175		De.	+	Cauter	,	Total of Farthe	-	
			4.	A	D-ce	-	feite	-	UPS	-	DL	+	Carter		Testing Marile		
lease send rush data to K. Petter	son and LBeyer; final	reports sha	ould be :	ient to LBeyer and S.Peters	Care .	-	Pat Es		U73		DL	+	Carler		Tacking Number		
EUNDARIA IT COLLEGE	211	in the second	Die .	Sandrand	· DATE	Betty	1010	100	(hall)		-	617	THE	1000	If youthy a	-	DATE/THE
PAY WOODS	Val	3/9/10	or:15	NO1:	1						. 1						
520/5+6) IT /million	pp	1/100	THE	PUTCEWED BY print Spream	EAT	214711	13.52	10-43 8				67	The	1000100	-	-	CATE / THE
				Ŷ							- 1						
ChivEil'S (President 18)					-	1	100	1000		1	À	PANE		10 S. Mar.	10	100	
3						5	2	0		1	1	Г					WATTLE
					8		1,4Dloxano	Bromate			1						Salars torinepell
8			5 2		35	1 Mar	ğ	ē		. 1	. I				1		Bilted
5 349 0000	EATE.	THE	COMP.	BURL CONTONOS	13	E		m			-	+		-	-	+	-
L.	C5/CA/2029		×	Outfail Ocd.	2	-	X			:	\rightarrow	+		-	_	-	< 7ppb
2	6509/2023	07:44	×	HC/HR	1	-	-	Х		_	_	-			-	-	n.d.
1			11		_	-				1	_				_		
			4	I	_		_								_	-	
					_												
7.												Т					
4				1													
												Т				T	
13.												T					
11.										1.1		T	1				-
12.												T				1	
1.			H		-	-	-			-		t			-	+	
14			+		+	-	-				-	t		-	-	+	-
15.			+		-	-	-				-	+			-	+	
u .			H	1 .	-	-				-	-	+	-			-	-
17.		-				-	-	-	-	-	-	+	-		-	+	-
		-	++		-	-	-				-	+			_	+-	
18.		-	++		-	-	-	-			-	+			-	+	
18.					-	-	-			-	+	+	-	-	-	+	
											- 1	1				1	1

G001-002 20/ORG SRF MARCH

rev 3/20/20

A Start Barnesser A Start Barne	nibarut Marin Marine Marine				CHAIN OF C	USTÓDY	RECOR	Ð				j								- Page 1 - -
ACT OF MARKA		Upour or	AP3%-	-TD-			-		-	1411	The Part	1140	MI HA	***	-	-				
all Corp. Standard Turn Aroun		l				í) et te		-		.AL	+	-	_	Zentra			
num second rockh dialter in X. Pettersson and L.Ba	and data				Descreed & De	_	<u>045</u>		Fee 24 Per 24		ur) Vrs			+	Conte Device		Xetta Pathy			
					ave li proprie						~		-		100		200	أعزمها		entrief
	11	. Wes	de la			έ.	1.00	THE	-a.var	4-63.6				ľ	1144	405.4				COLUMN
Cherry 11 14	20	11/20			AVICE IT PARTY	<u>v</u>	- 40	The state	No. In case	THE	-				194	V MORE N			-	LATE / LAT
-													. •							
6/3 /x=+0(12)											•••	÷.		al se	4 -					
fall (1.4-dioxane) samples and HC	ANK (DU	ALLER (BERLEY	a Ri	JSH	SAMPLES			ſ	6							!				WINE
	1							1	1.4-dimano					I	l	1				Sand
ANA STER	6479	7945	11	li -	SAMPLE CONT	feerin .	1 A					•								
	3/6/10	09:59		7	MD - 535		2		X				~							
	11	10:10	Ĩ		MW-530		2		1		6	10	2	3	N/	7				
•	\square	107		1	曲日 - 531		1			-	Ю	T	洲	72	1¥7					
	V.	12:05		ų	MH - 17		1		4		9	\sim	21	2	11				_	
	ļ		-	+			_	_				ېږ	-4	4	L	Ļ				
	<u></u>			+					\square			÷.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			·					
*	-		2		1000		+					<u> </u>	_	4.		_				
				+	1200	<u></u>								-	-		ļ			
			4	*								-	-	1	-					
			+	+	VF6S				\vdash					-		-				
	t -	-		t	C)								-	+						
	1.			+			-			-		-					-			
ar the theory and the transmission of transmission of the transmission of tran			-	t										1		h			-	
				1															-	
				L			_													
				T										1						
				1																
				1								:			L					
			1	-t												-				

AIS	111 Jacob Magner Rosa Jan Albe, Rosay et 613 An Albe, Rosay et 613 An Albe, Anna Andrew Anna Andrew Klanger (glanning Da 1964 Raccoln (glanning Da 1961) Raccoln (glanning Da 1961)				CHAIN OF COSTODY R						1								Page 1
AD ET PILLANCA		-	NO	too I	-	8-079	INTE	-		#2 mit, tes	iψ	-	4147	p	. e	_			
Pall Corp.	1.010 0000	}	_		1	~		l~s				-		Devie			-	<u> </u>	
						-		7.68				BL PK	\vdash	t mar				÷	
Piease senjo	l data to K. P	atters	ŞO			100		144 B		1.	÷	04	H	0.4			Norther Norther	<u>+</u>	
and the second se	12:11	27	pæ	4	CELOW WAY WAY	6.79	1148	-		-	4		-er	2.2	4.100	-		····	Construct of
MY LARD	116	1/10/10	a	nz	SPL			ŧ			۰.		1		{				· .
		1 000	% *		ALLENCE IT pastyres	1478	104	14.20	CRAND &	T practing	٩.		4	7748	10207	SIIP			CT PL/ 1947
		1									· .	_							
	anples and HC/HR (bri								- 1		Ţ	- 1	2702	1		, T			
osnad (1,4-occubie) 6	anappea and morrie (b)	shate) 6	03	hus	and and the a	1	1	B	8		1			1	1	1			Martin Inco
¢		-		÷		1.1	1	1.4-clorene	Bromate	11	3	1°		1		1		1	Man InVA
5 244 6204		m	1		Evena cast forma	18	1	i£.	18							1			
	Coloritati		x		Outtal	3	h.	X	1	t	-			1	t	1-			<7ppb
1	59:02:03	07155		X	HCHR	ñ		1	X		1		T	1	· · ·				nd.
	17/2/20	08135		χ	RP	2		X	12.	HCZ	10	Ret	1	1	-	1	-	1	
			t	1		-		٢÷		1		-		1	÷	 	1-	t –	
1 ,		1	Н					<u> </u>	t				1	+				f	
-			f			1		-		frit			-	1			_	-	· · · · · ·
7			M	Ċ			-				1		t	+	<u> </u>	-			
A			М			t	-			tt			H	+	f	t			
		1					*							t			-		
. :		1							t		;		+	1	-	1		-	
0.1													+			-		f	
e. .			H			•	-		·~~	t-t	<u>†</u>				1	1-	<u> </u>	i	
n		1	H	٣							~		+		-	-			
R		1	М		1	-							+	1	1	-		-	
11 .		-	H	H		-		f					+	1	-	1		-	
4			Н					-					+	-					
sr			H	1						t-t	;			1.	Ļ.				
													-	1	-	1	-		
		******	-			· ·			-	łŧ	-		+		ł		-	-	
ч.		: !																	

ars .	20 South Magang Bourd And Arison, Readingson (J. H.20 Tay, Ta Kitt, Barth Sang, Taka Ta Kitta, Sang Sang Sang Sang Hang Sang Labaratory Sa. Solid Mag Sang Labaratory Sa. Solid Mag Sang Labaratory Sa.		CHAIN OF CUSTODY	record					-			Faqu	5
ARCE OF CHARGES		LASSIA TON AVOID	ica .	1X1124 20	CRAFTER I	HUTTA PARA		-	presented.	*			
all Corp. Standa	rd Turn Around	1		- <u>-</u>	~			++			No. Lobe		
							64	++			dry hole		
	K. Patience and L.Bayer; data			54	Inch	LN	1 154		4.77		size Bartes		
	171.1		ski	* Politica	- PART		. .	Tr	UTIN	411010	-		20774
RAY WOODS	HA	3/1/20 054	NALWID TYPE NAME		10.00	-			UDA	-	(Pet 19-14		1/84
		1.1										· Į ·	
1010 1 (Familie #1)		1	· · · · ·	1.1				102.15	1.5	Í			
utali (1,4-dicuana)	samples and HC/HR (br	omate) are RU	SH SAMPLES		8		1		Τ				No.
			· · · · · · · · · · · · · · · · · · ·	\$	4-distrate			11				1 2	AND CONTRACTOR OF THE OWNER OWNE
man		111			Į Į					11		l ŀ	
- man	244	Piri X	14410000000	2	X		1	╈	1		+	+ +	
1	-//-	01:37	MW - 127D	2	121		1 7	++-	1		-+	+	
	····· ·· [··	10:58	MW - 1285	2			1	11		++		1-1	
i i		11:06	MUD - 12810	2	+		•	-	1		-		
		12:00	mw - 37	12					t	- +"			
		13:03	MW -125	I	1			11	-			1 1	
1								1	1		-	1-1-	
				1	T			T	1	T	-		
			· .				. ·	11					
. !				·	-		:	TT					
							1.1.1	ŀ		T			
		1 11			1		1	TL	1		1		
L							,						
·	·	1	·	1.1.	-			11	1				
4							hi .	1	_	1			
4					_		1	11	-				
1		J	1	-			•		1		1	1	
				_	_		1	11	1_				
								T				1 1	
		+											

	ense Lasteration En 1981 y En THERMIS			CHAIN OF C	USTODY #	ECÓR	a												Pron 5
CETCINFEI -		LARACOTT			ļ	hum							1	ان اور از					
all Corp.				0.0	i .	***	<u> </u>		-	5		é.	T]~~	ř –	1	-		
ALL DATION PRODUCTS		-			1	0		MB		1972	1	DR.		Desta		The state		-	
Please send data t	o K. Pa	atters	on	and L.Be	ver	-		74.2			4	H.	1	Carty			. Namber		
SQUED IT put line		1 10 70		Walte Doomen	<u> </u>	610	7748	1410	12-07		_	IN.	877	Easter .	-		No.	L	12:0 me
	1	3/1/10	Ar.	1K	1						- ,								
Ret Way	A	1/10	-	aperie House	0		Int	1250	4401	-	-i		93	1114	4347		-		boond
				r (ļ	1		Į					[)				1 1
LAND TO PROVIDE LA					<u></u>		r -	÷			- de		1111	ñ.					
kutaš (1,4-diaxane) semplos and	HC/HR (bro	snate) er	e RU	SH SAMPLES			1	8	g								1		lames.
						14		1,4-dloon	Bromate		11					١.		i i	Balan Ner April
			۶lء			26		14.	ē						L		1	1	-
1.01000e 7	1144 (1705020	74	XI	Lutra mir		2		X	m	<u> </u>		-	+	<u> </u>	-				<70pb
	011238		٩×	HCA			1	12	X	· ·		·				<u> </u>	-		n.d.
ь — ф	cons258	07:50		nun	uk I	1	ļ	<u> </u>					+					ļ	a,a.
			-+-				· ·			}			+		·				
· · · · · · · · · · · · · · · · · · ·											÷		+			 	<u> </u>		
L			+-	<u>f</u>			-						+	-				-	
·			+		<u> </u>	-					+		+	<u>}</u>					
<u></u>	·	<u> }</u>			h	+	<u> </u>	<u> </u>				·	-	 _			<u> </u>	·	
·			+		l		ł												
		·	-											- · · ·		{			
*			+-	<u> </u>	·		-							<u> </u>		<u>├</u>			
L			+-				i			-	÷ .	~~~	+		-				
<u>+</u>			÷				- t-		-		·		+	f		-	+ ·		
• ······			-+-	1		1					4			<u>+</u>	-	-			
<u>.</u>			+		-													-	
• · · · · · · · · · · · · · · · · · · ·			-+-			1		-			+		+-			<u> </u>		ļ	
·		-	÷					-			-i		+)	ļ		-	
»	1		+-	· · · -						-		-	+	-	-	-			
L			-f				-	1				·				ŀ	ļ	-	
A			4-			-		· · · ·			1		-						·

AIS	Int County Course For An Advan, Frances of Bol Foreine Laboratory I Bol Foreine Laboratory I Bol Foreine Laboratory I Bol Manuschi Laboratory	41 1/16 23445648721 25 9844 25 9844 25 984431758				CHAIN OF C	USTODY	RECOR	D				1.								Page 1
WO DET DI MANUA			LABORTON	HTTP	-		i	2-1710	Artes	-		First In	4 TPAC	DGH4	1200		-		_		
Pall Corp. St	andard Turn Aro	und					r	Pro.		MP				в4		0.00	·	13,64	Harter		
MARIE D. COLOR PHILE			-					0.		-		V.	,	X.	1	Darks		7-1-1	Herebell		
	stable. Patterson and	LBayer; dat	a Hitoria ey	a Ma	a ta i	Leaver and S.P.	64	10 143		1.10		193 197	×.	ભ	+		-		ملدين جندري		
CPZ 341 FIF-In-	and the second second	4	1.2	7.4		NZ		100	6AL	-		* pain			r	E THE	7900	10 17 /0			BATTON .
RAY WOOT	s in	*04	3/11/23	064	<u>କ୍</u>	terformannan			V#T	10100	beši	*1-114	-		ľ	47194	-	ane	(April 1)		6011277-4
Outiaă (1,4-dico	ana) sumples and	HCAHR (b	comate) a	na Ri	USI	SAMPLES			ŧ	ē]	!								Makolana
S warmer			Test	1		AVA. I CO.		AL C		1 4 diam						L					Albert May
1	1	3/10/	108.50		XI	MW - 112		2	L	X	L.	ļ	<u>.</u>		Ц.						
		1	01:15		ŧĹ.	MW - 112		2		11	ļ					· ·				<u> </u>	
		. 1	09:50		Ш	MW - 103	5	1	_		1	1_	·				1				L j
			11:07		11	MW - 76	T.	11		Π.	i		L				L				
		1 V	17:17		V	MW- 76	5	1		W	1							1			
										I .		-				1			г—	1	
	1				T		1				F		1	-	T		1		F		
				t=t	1					1	1	1			Ħ	-					
				Ħ	+		1					1	1	-	1		1-			-	
	1		1	† †	+					t	f—	<u> </u>	1÷		H	t	+	1-	t	I	
					Ŧ						+			 '	H	+	+	+		<u>}</u>	
<u>N.</u>			1	-	-			-1-				<u> </u>		t	H	+	+-		í	-	
18.			-		+					+	<u> </u>		÷		H	+	+	1		ļ	
u	· · · · · · · · · · · · · · · · · · ·		+	┢╋	+				-		-	-	÷		H	+		+			
4		-	+	++	+				-		+		-	1.	4	+-		+		Į	·····
<u>vi</u>				t-ŕ	+					-	ŀ	÷	<u> </u>	-	1	1	-		-	1	
				11	-				-	1	l	÷	<u>}.</u>	.	11.	-	+	-	-	<u> </u>	
17.			- 	1	-		1		L		-	-	1	l	μ.	1	1				
18		-		11						1		ļ	Ľ.		Ш	1		-	1	ļ.,	
1.			1		-		1				1	l	·	L	Ц.	1	· · · ·	1	-		
n											£	1	1.	1:				1.			

	249 Joody Yagan Kuré Jan Japan (Hili Sata Taran Labi) Ya Kabila Mili Ang Taran Labi) Ya Yagan Laba Yay Ar Huli Ya Roman Laba Yay Ar Huli Ya	-		CHAIN OF C	USTODY R											-			Paga 1
ADART D. H. MARA		horan de	#900m	nor			0 101.0	-			W†Me	QUI KM	120-1	(fighted	۳ <u>ـــــ</u>			Ļ.	
Pali Corp.						m		7.824		5		***	+			Evel 1	Number Number	-	
	d data to K. P	atters	son	and L.Be	ver	1.8		ANK THE		5 3	T	e.	‡	0		1041	Webe.	-	
	211	1 440	154	PARA CO PT OPIN		-	iner mer	Ter a	-		÷	-	-	Carder U IM		1000			DATUTA
RY MOOS	- Chlan	5/12/2	0 072	spl		807	104	-8.8.3	жŰ	*****	÷	-	h	i.ma		oh/			E-PRY THE
Carl Carl Carl Carl											١.,	5			L				
	samples and HC/HR (b	romaia) a	ra RU	SKEAMPLES		↓.	1	etxu	ate		1		205		[NCLE HOUSE PERMIT
g 1	843	ter	11	and per			1	anxob	Bromate		÷								Betraritiker Jahren
1	C1112		X	Outf	1	12		X	-		.,		-		1				<70pb
	197192	07:39	X	HCA	R ·	Ti			X		i		T	1	1	1			n,đ,
1		1			-	1			Ī		1		1		1	-			
		1.	117					·			1			T	1			{	
				l							:				1	<u> </u>			
۶						1			L		T			. ·	1				
2						-					1	3	T						1
						1.		-			1		T	1.		E.			
L		1							1		4.	•	1	1	L				
			<u> </u>					_			1	-	Ŀ				L	L	
12			\square		· · · · ·	<u></u>	1				4-	<u> </u>	1		ļ	<u> </u>			
12		-	Į.,	· · ·		1	·	L			4.		4		Ľ				
u			\square			1	<u> </u>				÷					<u> </u>		-	
*		+	\square		-i	-		-	ľ		-	1	1		ļ		L		
12						-	-	-	-		1.:	:	÷.	-	ŀ.		1.		
1K		-	i-l-	·				L	<u> </u>		<u>i</u>	L	+	1	<u> </u>	:	·		
<u>u. </u>				Į	· · · · ·	-				· · ·	:	11	+		h				,
<u>u</u>		-	1.			+		L			1		4				L		
4			μ.			1.		-			1	1	+	-	I				
<u>n</u>			<u>} .</u>			1	Ļ	1		_	1		+	1.	· ·	E.			

	usi.	Phil Rough Spragner Root Joor J. Star, Williams & Tul Johnson Amerika Williams Laboratory I Wilson Laboratory I	1 14 14 14 14 14 14 14 15 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 17 17 17 17 17 17 17 17 17 17 17 17				CHAIN OF CU	ISTODY F	RECOR	Ð			;				•					Page 1
-	CI GUASACIA			Luov se				· · ·						1		-	For					
Pal	I Corp.						·			1000	1~~		1	1		7	1		1.		<u> </u>	
			· ·		-		1		1 He		Inch	<u> </u>	1.00		1.	H	1000	1		-	-	
P	ease sen	d data to	K. Pa	atters	sċ	m	and L.Be	/OF	-		-	1	597		04	ĽÍ	0.0			-		
	LINE IT PRINTING			601			INNESS PERSONAL			1774	140		1 100	1	-				-	-	·	-
	W LEON	12	bl-	3/13/2	/						at to				1	I I		-				20175-6
	fall (1,4-dioxane)	osubjea and H	iC/HR (bir	omate) a	irə	RU	SH SAMPLES			Į,	1,4-dicrone	Bromato		1			942			ľ		HATTER Falsati Galivilariy Lafacati dag
1	ul and		61	- 14	1	1	BUR I DOUTON		1	HOOM		Broa										Coloui
4	· · · ·		612272		×		Outra		3		X			.11	•			1		F		<7ppb
4			4513122	07:57	l	X	HCA	£ .	11		-	Х					Γ.				1	n.d.
4				<u> </u>	L	Į			_		L											
4			·	L	4	Ļ	· ·		1								T	I			T	
4					L	-												1			1	· ·
4			+		L	1								11						· ·		
4				·	L	1												1			T	
4					L										ŀ							
ł					Ļ	-												1				
4					L									1		Т						
4			·	:	L		!							11	1.							
4	1						Í								1	-	1			· · ·	(···	
4							Į.					_		£ i	١.	1	1			-		
4					L				1.			-			1		1					
4													_		· · · ·	t	1					
4												-	1	1		-	1					
											-		-	1		+	†				-	
t	:		1						+				- 1	÷	T.	÷	-					
1									1				-			+			-			
ł									·					÷		÷	1-		-			
							1		-				I	I	. 1	+	<u>.</u>	L				
	. :						i															

	w Bod Man Bull Pau Zakim (2251 Wey Dr 1974 Wey Dr 1974 Wey Dr 1974										ų							·	Ś
		PARTICIPATION I	17000	-		****		Tox (1010	(Past int	(inter-		4200	-	A				
Pall Corp.	1000 00 7 LAA	ł		_			-	/4 B		01		-	1	<u>~~</u>		in the second			_
	1-12 D					80	<u> </u>	in te In te	-	101	눼	-							
Please send data	IOK. P	aners	son		yer	Date:	1	ALS.		1.1	14	a.		200		Pantara I			-
CASHE Truther	11	200		Cerebin di mart	1	BAT I	rine.		1.127	·	~	·	4	100	JETYD	Trees	-	6477.1V	54
RAY NOOPS	1-	3/8/0	601:	AR)						dì		LI.						÷
District of frymanic		1 pm	174 ·	CONSTRAINE.	1	1	754			1 (* m. 1 fe			1	1994	Viciti-tic	17 144	***	1000	1 14
(indica 7 m + min m)		1		1 ·	-	1	<u> </u>				11	í.		1.					
Duttali (1,4-dioxana) samples r	M RCHB In	a latern	e Ri	SH SALIDI ES									OB OF	° -					
sonor (its surgial sautres s	·····		ie nu	01.0/09/120	L	ι.	11	1,4-closene	18				1			4		Lang Barry	÷
e 1			ET.	T		1.1	ž	븅	Bromate	1 1	1			1				2.0	-
5 m orts	617E	7.4	11	HAT I SOL	ter ter	111		4	ы Ш		11						- 1	1	
	B15728	-	X	Outia	ទ	12	1	X	-		T	1	П				-	<700	рb
1 .	6315202	47:40	下	HC/H	8	11			X		li		T			- 1		a.d	
1	416 20	08:00	1	RF		12		X		Peer	·na	200		1			-		
			T	indea o		1					1	T	T						
		1	T	1							1.	-	T	1			-		
		1	П	1	· · .	-			<u> </u>		Π	T	П			-1			
		1	T.			-					Ŧ		H						
						1					÷			1					
									[1							
14,				T		1						7.1		1 ···	The second se				
11														-	- 1	1			-
u						1	-					-					1		
u i			IT			1	1				3.	1					-		
5A.		ł		1.						r t				-					
• E .				l .							-	ï							_
						1					1.		T						
16						· · ·					-								
14.			1			1					. :	1	1	T		-	+	1	
12.		· · · ·	h		-					1	1	1							

	h Wagner Raad av, Klastigen 68 123 193-0438 FAN 734935-372 1 1 Adamson filt 8924 In Laboratory 10, 8934 1729 A Laboratory 10, 893321729			CHAIN OF CUSTODY	RECO	SD.							Paga 1
DETRINUELA		CARDANTER .	(AFOR	ATON	1.00	IS NOT	WATCH BE	The best First	MADORNA NU	ASCRUE OF employ	e ing		
all Corp. Standard Tu	Irn Around	5. 1			Del.		Testa	01	DR.	Carte		Taniglieter	
		1 4			c.,		fetta	101	04	Gauta		Twaty Handa	
ease send rush data to K. Patle	rson and L.Bayer, data	reports sh	cu/d g	o to LBayer and S.Peters	cab		fel ta	141	24	Carlo		Terry and	
10.3-13 17 pain and 1	ul	7/2/0	18:2	a spi		ÚTHE		C) If Pull Spece		Carra Carra	ACENE	Turing Waster	CATE/THE
ALL PLD IT / Stifpart	2	cure :	The .	ACCOUNT IN Switzens	4	THE	Mana/s	C) #1 (million		CATE/THE	aceve.		ENISTING
(in passing Factoria, etc)			_		-++	1	COLUMN 1	ACCRET OF A	and the second	NUL 150	-	1	
utfa'l (1,4-dioxane) sampl	es and HC/HR (br	omate) a	re Ri	USH SAMPLES		T KUNEDI	1,4-dioxne	T	Τ				Married Prime Labor and A
SAN DODE	5.72	i nel	1	BARA DEPARTON	AL OF	Decim	1.4			2 2			Ednut
	3/13/20	10:05		MW-133D	2		X						
		11:14		MW - 133I	1		IT						
		11:58		MW - 1335	11	-			-			-	
1		12:42		Barmw-93	N	-	1,1		-			1	
		1.1	H		V	-	14		-				-
			H		1	-	+	1.1	-				
		1	H			-		++	-		+ +	1	
			H			-		++	-		+ +		
		1 3	H			-	+	++	-				
			H		. 11	-			-		- 1		
			H			-	+		-		- 1		
			++			-			-	-	-		
			++		-++	-	+		-		+ +		-
			++		-++	-	++	++	-		$ \rightarrow $		
		1 .5	++			-			-				
			+			-			-			1	
		1 1				_			-				
	100	1 1	\square										
		1 .5			1							:	
		1 10			1								

And Action, Unsurger Read Action, Unsurger Read Action, Unsurger Action, Act

CHAIN OF CUSTODY RECORD

Page 1

ASCALLE 102.CK		ABONDER!	Apress	1978	04720	4 h/01	ration	Deve	pate	OFFICER	MARCA	100000	-Alig				
Pall Corp.					0.0		7.11		1		ч Г	Chr	-	1	1-1-1		
CONTENTION (1997)					2.00		int		103	0		Carr	-		14.00-		
Please send rush data to K. P	allerson and LBeyer, data	reports shops	AL DO	In L.Beyer and S.Peters	Crs.		feste		1.95			Cr.	-	Pate	Arte		
LAND BUILDING				and the Arrest	0.04	Int	7.12	_	10-11			Car.	-	Inc. 4	Seater .		
	1211	alida		+ 11 0	End	TINE	as a	11-61	10-410		1	oung	etter	one			DATE / TAR
Gy Wors	1 m	3/19/10	11 44	ALL	617	/142	46.55		17 p-1627	-4	-	ANY FILE	-	10112-	41y	-	6437153
Distant Pressent et			-		-	_	-			-		755					
Dutfall (1,4-dioxane) sai	mples and HC/HR (bro	mate) an	RUS	SH SAMPLES		ğ	2	a			Т	T	Г			-	818786
8			T		-	1	1,4-dioxne	Bromate									Istate Latitude Isteart Putpe Terms
A riscont	SAT	11.2	202	Initial development	000		12	L B									
	C5192(25		×	Outfall	2		X										<7ppb
1	632920223	07:58	X	HC/HR	1			X					1				n.d.
3																	
4					_												
4					-	_	_	-		-	-	-					
L					-		-	-		-	-	-	-	-		_	
2			+		-	-	-	-	\vdash	-	+	+	+	-	\vdash	_	
			+		-	-	-	-	\vdash		+	+	+	-	\vdash	-	
13			+				-	-		-	+	+	+	-		-	
11.					-	-	-			-	-	+	-	-		-	
12										-	-	+	+-			-	
0													-	-		-	-
4																	
18.					_			_									
18.			1														
17			+							_		-					
			+			_				-	-	-				_	
13			+		-	-				-	-	-	-			_	
18.									I		1	1	1			2	



Data Transmittal Cover Page

Project Name: Pall Corporation ATS Project Number: G001-002 ATS Report Number(s): Org_SRF_0326201

Project Description: This data report contains the results of one water sample, received by ATS between 3/26/20, to be analyzed for 1,4-Dioxane.

We certify that the sample analyses for this report have been conducted in accordance with guidelines provided in the referenced standard test method, and are consistent with detailed procedures described in a written Standard Operating Procedure specific to the ATS Laboratories, as required by USEPA. Laboratory data sheets, SOPs, and QA/QC information are available for Inspection and audit at the laboratory upon request. Unless specifically noted on the data report, all applicable sample preservation and holding time requirements have been met.

Recipient:	Ms. Sue Peters		Email: FAX Number:	Sue_Peters@Pall.com
No. of Pag	es (including cover pg.):	7		
From:	Sarah Stubblefield	Email:		d@AnnArborTechnicalServices.com
Additional	Senior Chemist / Lab Manager Message:	FAX Number:	734-995-3731	
Additional	-	FAX Number:	734-995-3731	

Date: 4/3/20

DAL 6 C Signed:

IF YOU DO NOT RECEIVE ALL PAGES OF THIS TRANSMITTAL, PLEASE CALL 734-995-0995.

This material is intended only for the use of the individual or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient or the agent responsible for delivering this material to the intended recipient, you are hereby modified that any dissemination, distubution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone. Thank you. X:\G001-002.20\Data_Transmittal_Cover_Page SLS

NO.SET O INCOMENTAL		UABORATORY A	1000	104	24 #71	44.704	10101 8-0	Petroli	MORE IN	10,030	apphietos		_	-	
Pall Corp.					In		Intel	7.00	Te.		over		Inter Later	-	
WP.C.ITOXIC-SPR.d					649		FILE	urs	B.4.		Envir		fusing threat		
Please send rush data to K. P.	atterson and L.Beyer; final	reports shou	/d be	sent to L.Boyer and S.Paters	Cro		fille	173	11		tors		Indigitator		
ALC: CONTRACTOR OF CONTRACTOR		61.11.75		HICEMOTI'S HIVEN	to		fate	DIPATING	OL	-	Case		fatty Lota	_	GATELTINE
	7/her				1		Participan	- Information		1	···· [In Property Co		therese
RAY 15:05 7	1112-	3/2/20	100	ESO-DHALL	147	181.18	10100	arry aity and	_				Trester.	_	EVELES.
				and the second sec	-			a copy and a st		1	···· [acre	Ant and a state of		toned
ATT (1) (1 (Property as)			_		-	-	-			AV04154	_				
							0			and le					
						1	at								PATRIX PERSONAL PROPERTY.
9		TT	1		1.1	I É	Bromate								Erest Cont
5 INTECOL	0172	1.7	813	BASING GOVERNMENT	98	18	l a								
		1/10/20	X	TEST	1		X								<15ppb
2			Т												
3			Т												
4			Т												
									-						
			Т												
2			T		-				-					_	
			T												
					-				-						
10					-				-					-	
11.			Т		-				-					-	
12			T		-			++	-			-		-	
			+		-				+					-	
94									-		-	-		-	
u									-			-		-	
					-				-			-		-	
17.			T		-			11	-					-	
			+		-				-			-		-	
12.			+		-	-			-	-	+	-		-	-
13.			+		-	-	++		-		-	-	-	-	

All Local Report And In Forth Report And In Fo

CHAIN OF CUSTODY RECORD



LABORATORY OPERATIONS CASE NARRATIVE

ATS Project Number: G001-002 Report Date: 4/3/20 SRF / SDG Numbers: 0326201

Case Narrative Summary

This case narrative applies to the following sample that was received at Ann Arbor Technical Services, Inc. (ATS) on 3/26/20, and associated matrix-specific QA/QC:

Samples				-
Client Sample Identification	Sample Date	Requested Turn Around Time	Analysis	Matrix
Received 3/26/20				
697 S Wagner Road	2/24/20	Standard	1,4-Dioxane	Drinking Water

Upon receipt, samples were scheduled for the following analyses:

Analysis Number of Samples
1,4-Dioxane (US EPA 1624) (Standard Turn) 11+1 Matrix Spike / 1 Matrix Spike Duplicate

Sample Receipt, Chain of Custody Records, and Holding Times

Samples were delivered directly to ATS by Pall Corporation staff. Samples were received with proper chain of custody records included. Sample condition and anomalies, if any, are presented in the "Chain of Custody and Sample Receipt Documentation" section of this report.

Data Review and Approval

All data contained in this report have been generated in accordance with guidelines provided in the referenced standard test method, and are consistent with detailed procedures described in a written standard operating procedures (SOPs) specific to the ATS Laboratory, as required by US EPA. All data are peer and management reviewed to ensure compliance with the above referenced SOP's and project specifications. In addition all data conform to the laboratory's Quality Assurance / Quality Control Manuals.

A single QA/QC batch is defined as no more than 20 samples excluding method blanks (MB, LRB), fortified blanks (BS, LFB, LCS), matrix spikes (MS, SPK), and duplicates whether spiked or native (MSD, SPK DUP, DUP, LR).

G001-002.20/CN_0326201.doc

Consultants in Chemistry & Environmental Science 290 South Wagner Road, Ann Arbor, Michigan 48103 Tel 734/995-0995 Fax 734/995-3731 This data package constitutes a Level II package; other data report packages (Level I, Level IV DVP, EPA R5 EDD) are available upon request. There were no hardcopy data summary sheets generated for this project.

Sample Analysis

<u>1.4-Dioxane Analysis (GC/MS)</u>: Samples were analyzed in accordance with US EPA method 1624 (Volatile Organic Compounds by Isotope Dilution Oas Chromatography – Mass Spectrometry). An initial calibration with at least five levels was used to quantitate 1,4-Dioxane. Samples were reported to project specific reporting limits.

Anomalies Noted: • None

Analytical QA/QC Summary

Calibration Verification

Method calibration was verified through the running of a mid-level initial calibration verification (CV) standard at a frequency of every 24 hours (1,4-Dioxane). All verification standards met the acceptance criteria with the following exceptions: • None

Instrument Blanks

Instrument blanks were analyzed at a frequency of every 24 hours (1,4-Dioxane). All blanks met the acceptance criteria with the following exceptions: • None

QA/QC Batch Summary

Laboratory Reagent Blanks

A laboratory reagent blank (LRB) was analyzed with each QA/QC batch. The LRB's met the acceptance criteria with the following exceptions: • None

ATS Project: Pall Corporation

Reporting Limit

0.001

Report Date: 4/3/20 ATS SRF: 0326201

Result

<0.001

G001-002.20/CN_0326201.doc



280 South Wagner Read Am Arbox, Michigan 48103 Tel, 73495-2985 Faz, 724/985-373 Michigan Laboratory ID: 8963 Witecomin Laboratory ID: 89631172

Sample Identification: 697 S Wagner Road

2/24/20 11:00 AM Client

3/26/20

Drinking Water

Method

EPA 1624

Units

For: Ms. Sue Peters

Sample Date: Sample Time:

Sampled By:

Sample Matric

Parameter Organic Analysis 1,4-Dioxane

Pall Corporation 642 South Wagner Road Ann Arbor, MI 48103

Laboratory Receipt Date:

Organic Analysis Data Summary Sheet

Analysis

Time

12:06

Analysis

Date

3/26/20

#G001-002

Analyzed

By

JEB

Laboratory Fortified Blanks and Matrix Spikes
A laboratory fortified blank (LFR) / laboratory control sample (LCS) was analyzed

A matrix spike (MS) and matrix spike duplicate (MSD) was analyzed with each QA/QC batch. The MS/MSD met the acceptance criteria with the following exceptions: • None

Matrix Duplicates

A replicate analysis was analyzed with each QA/QC batch. All replicates met the acceptance criteria with the following exceptions:
• None

Sample Dilutions

Samples containing compounds at concentrations above the initial calibration curve were diluted and reanalyzed for those compounds. The following samples were diluted for 1,4-Dioxane: • None

Markalitong	
-------------	--

/ April 3, 2020

/ April 3, 2020

Aristu.

Mark T. DeLong (Quality Assurance Coordinator)

Philip B. Simon (Laboratory Director)

Comments All methods reference USEPA methods unless otherwise noted na - Indicates not available / applicable. Semple analyzed at native pH.

G001-002.20/CN_0326201.doc



Quality Assurance / Quality Control Data Summary

#G001-002

IC Batch Number: QCORG0326201 Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation Report Date: 4/3/20

Results of QA Samples run concurrently with project samples

REPLICATE ANALYSIS Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 697 Wagner Road 2/24/20 Malric Spike	0.012 mg/L	0.011 mg/L	0.011 mg/L	4.6
SPIKES and/or QC CHECK SAMPLES				
Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
#G001-002 Laboratory Fortified Blank 697 Wagner Road 2/24/20 Matrix Spike 697 Wagner Road 2/24/20 Matrix Spike Duplicate	<0.001 mg/L <0.001 mg/L <0.001 mg/L	0.010 mg/L 0.010 mg/L 0.010 mg/L	0.010 mg/L 0.012 mg/L 0.011 mg/L	99.4 117.3 112.0
BLANK ANALYSIS		Analyzed (Concentration	QC Decision
Sample #G001-002 Laboratory Reagent Blank			001 mg/L	Acceptable
Comments:		Control Limits:		

Comments: Calculations performed prior to rounding.

Control Entrits. Laboratory Control Sample Recovery (85 - 115%) Matrix Spike Recovery (80 - 120%) Relative Range Replicates (<20%)

G001-002.20\ORG_SRF_0326201

rev 4/3/20

131 Earls myour Earl The Adding Recipion of the International Control of the Adding Statistics (1) The Control

CHAIN OF CUSTODY RECORD

Page 1

ALLECTIO INDATES		ANOLATOTA	1.50	CULT I	94	D-10+2.2.	67704	19737 BO	inter for	Asealite	ACTIVITAL	BCA(B)	PARTIN	143		_	
Pall Corp. Standard Turn A	round					0.0		Tet Da		100	DL		Caste		Bally No.	tr	
Blanda	A. Turn	andu	nd.	T.	HINCOM Walter	0/1		fette		100	DE		GUN		tudeptie	ter	
						0.0		1.10		101	DL		core		1.548.4		
Please send restricted to Jok Patterson at 40 SUL	D LDejei, OSA	TLOO	er.	a.,		0.00		felta		22	01		6.70		tak-pile		SAIS I DAT
RAY INCODS THE		1/10/20				eor	/ELE	(CARD)	DIF	etten)		ere	and the	PERCO	utrente		EAST DAY
EUROPER ITP-steres	in -	tuti	100	"		Care.	and .	11.215	DITP	miligant)		ETH	and a	12:04	all party	-	ENTERTAL
CONTRACT FRANCISCO			-	-		-			1000	1.1	4 1		a	100	(a. 7. 10)	1000	
Outfall (1,4-dioxane) samples an	d HC/HR (bro	omate) a	re F	RUS	H SAMPLES		-	oxuo									Martin Maria In Provide Instruction
9	51.12	1.4	8	-	INTERPOSED	2.00	ALINOWA	1,4-dioxne									
1	2-24-20	511:00			6979. Wagner Re	2		X								-	Drinkeing
2						-			+	-	-			-		-	
3		-	Н	-		-	-	+	+	+	-	-	-			-	
4		-	Н	-		1			+	-	+					-	
1																	
7.											-					-	
						-			+	-	-	-	-	-		+	
		-	H	-		-	-	+	+	-	-	-	-	-		+	-
12	-	-	\vdash	-		+			+	-	-		\vdash			+	
12.																	
12										-						_	
14.						-	_		+	_	-	-	-	-		-	
15	-	-	\vdash			-	-	+	+	-	+	-	-	-			
18.		-	\vdash	-		-		\vdash	+	-	+		-	-		+	
17.		-	H	-		-	-		+	-	+						
18.									-								
71		-															