

CASE NARRATIVE

Monthly Data Pall Life Sciences
Project: 1,4-Dioxane Remediation
Date: April 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.

Some of the April samples were analyzed at by Ann Arbor Technical Services (ATS), the balance of the samples were analyzed at Pall Corporation's Environmental Laboratory. The sample split was due to unexpected instrument communication issues 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 ≤ 2 , with the exception of the Pall ozone treatment samples. These samples have compounds that, when mixed with the hydrochloric acid (HCl), 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 ($\pm 2^\circ\text{C}$) 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, $\mu\text{g/L}$). 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.

Barium

A composite Outfall001 sample was sent to ATS for total barium analysis in accordance with EPA200.7. Barium samples are analyzed in compliance with PLS NPDES permit. The results were less than the permitted level of 440µg/L at 230µg/L. Sample was analyzed on 04/23/20 with a reporting limit of 1µg/L.

Qualifiers

1,4-Dioxane Qualifier Codes:

<u>Qualifier Code</u>	<u>Description</u>
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.
B:	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.
O:	Samples analyzed in outside laboratory.
S:	Samples split with DEQ.

Bromate Qualifier Codes:

<u>Qualifier Code</u>	<u>Description</u>
nd:	The compound was analyzed for, but was not detected at or above the detection limit indicated.
E:	The compound result is greater than the upper quantitation limit in the associated calibration curve.
J:	The compound was positively identified; the associated numerical value is the approximate concentration.
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 28 day hold time

Analyst: Susan E.O. Peters

Susan E.O. Peters

Date: 05-08-20

Report Checked by: Laurel Beyer

Laurel Beyer

Date: 5/8/20

Sample Analysis Report

April, 2020

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

Analyst Initials: SEP
Date: 08-08-20

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)
Extraction Wells								
C3								
DOLPH-04-02-20-10:05-1	110	1.0						
TW-1-04-02-20-10:30-1	40	1.0						
TW-10-04-02-20-10:25-1	340	10.0						D
TW-14-04-02-20-10:50-1	34	1.0						
TW-20-04-02-20-10:10-1	840	25.0						D
TW-3-04-02-20-10:35-1	43	1.0						
D2								
LB-4-04-02-20-09:45-1	420	10.0						D
TW-21-04-02-20-09:50-1	290	10.0						D
TW-9-04-02-20-10:40-1	430	10.0						D
E								
TW-17-04-02-20-10:45-1	210	10.0						D
TW-18-04-02-20-09:55-1	240	10.0						D
TW-19-04-02-20-09:35-1	510	10.0						D
TW-23-04-02-20-09:40-1	330	10.0						D
Marshy								
PW-1-04-02-20-10:00-1	580	10.0						D
SW								
TW-22-04-02-20-10:15-1	400	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)
TW-28-04-02-20-10:20-1	660	10.0						D
Monitoring Wells								
D0								
A2 Cleaning Supply-04-06-20-13:30-1	61	2.0						O, D
MW-53d-04-06-20-11:49-1	nd	1.0						
MW-53i-04-06-20-13:11-1	34	1.0						
MW-53s-04-06-20-11:37-1	nd	1.0						
D2								
2819 Dexter Rd-04-22-20-12:27-1	180	10.0						O, D
456 Clarendon-04-22-20-13:45-1	560	10.0						O, D
HZ-S-04-02-20-10:55-1	940	25.0						D
MW-107-04-16-20-13:48-1	640	10.0						O, D
MW-113-04-14-20-11:23-1	94	2.0						O, D
MW-117-04-22-20-08:42-1	4	1.0						O
MW-118-04-29-20-09:31-1	52	1.0						
MW-120s-04-20-20-10:22-1	nd	1.0						O
MW-121s-04-14-20-08:52-1	nd	1.0						O
MW-122s-04-24-20-13:04-1	250	10.0						O, D
MW-123s-04-24-20-10:23-1	nd	1.0						O
MW-124s-04-21-20-10:09-1	nd	1.0						O
MW-129i-04-23-20-12:37-1	nd	1.0						O
MW-129s-04-23-20-11:29-1	nd	1.0						O
MW-130i-04-23-20-10:07-1	5	1.0						O
MW-130s-04-23-20-08:43-1	nd	1.0						O
MW-54d-04-22-20-11:07-1	23	1.0						O
MW-54s-04-22-20-09:57-1	nd	1.0						O

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-92-04-16-20-12:17-1	71	1.0						O
MW-BE-1d-04-20-20-14:06-1	490	10.0						O, D
MW-BE-1s-04-22-20-15:01-1	670	10.0						O, D
MW-KD-1d-04-20-20-12:47-1	340	10.0						O, D
MW-KD-1s-04-20-20-11:40-1	120	2.0						O, D
E								
MW-100-04-24-20-14:29-1	2200	40						O, D
MW-101-04-14-20-12:40-1	90	2.0						O, D
MW-103d-04-08-20-12:19-1	6.2	1.0						
MW-103s-04-08-20-11:45-1	73	1.0						O
MW-104-04-09-20-14:13-1	23	1.0						
MW-106s-04-29-20-10:49-1	230	10.0						D
MW-108d-04-29-20-13:16-1	650	10.0						D
MW-108s-04-29-20-12:07-1	280	10.0						D
MW-110-04-10-20-11:30-1	79	2.0						O, D
MW-112d-04-08-20-09:50-1	nd	1.0						
MW-112i-04-08-20-11:00-1	8.4	1.0						
MW-112s-04-08-20-09:25-1	nd	1.0						
MW-119-04-09-20-10:19-1	35	1.0						
MW-120d-04-20-20-09:13-1	nd	1.0						O
MW-121d-04-14-20-10:02-1	2	1.0						O, D
MW-122d-04-24-20-11:51-1	nd	1.0						O
MW-123d-04-24-20-09:04-1	nd	1.0						O
MW-124d-04-21-20-08:59-1	nd	1.0						O
MW-129d-04-23-20-13:45-1	1	1.0						O
MW-130d-04-23-20-08:58-1	nd	1.0						O
MW-76i-04-08-20-13:36-1	80	2.0						O, 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-76s-04-08-20-14:45-1	260	10.0						O, D
MW-79d-04-10-20-09:01-1	nd	1.0						
MW-79s-04-10-20-10:10-1	290	10.0						O, D
MW-81-04-14-20-14:00-1	160	10.0						O, D
MW-84s-04-09-20-09:00-1	410	10.0						O, D
MW-85-04-09-20-12:54-1	560	10.0						O, D
MW-88-04-09-20-11:36-2	160	10.0						D
MW-90-04-16-20-10:34-1	6	1.0						O
MW-91-04-21-20-12:52-1	180	10.0						O, D
MW-98d-04-21-20-11:32-1	17	1.0						O

Surface Water

Not Applicable

HC/HR-04-01-20-07:50-1				nd	2.0			
HC/HR-04-02-20-07:55-1				nd	2.0			
HC/HR-04-03-20-08:05-1				nd	2.0			
HC/HR-04-06-20-07:50-1				nd	2.0			
HC/HR-04-07-20-08:05-1				nd	2.0			
HC/HR-04-08-20-07:55-1				nd	2.0			
HC/HR-04-09-20-07:40-1				nd	2.0			
HC/HR-04-10-20-07:45-1				nd	2.0			
HC/HR-04-13-20-07:55-1				nd	2.0			
HC/HR-04-14-20-07:55-1				nd	2.0			
HC/HR-04-15-20-08:15-1				nd	2.0			
HC/HR-04-16-20-07:45-1				nd	2.0			
HC/HR-04-17-20-07:40-1				nd	2.0			
HC/HR-04-20-20-08:00-1				nd	2.0			
HC/HR-04-21-20-07:50-1				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-04-22-20-07:40-1			nd	2.0				
HC/HR-04-23-20-07:45-1			nd	2.0				
HC/HR-04-24-20-08:00-1			nd	2.0				
HC/HR-04-27-20-08:20-1			nd	2.0				
HC/HR-04-28-20-07:43-1			nd	2.0				
HC/HR-04-29-20-07:50-1			nd	2.0				
HC/HR-04-30-20-07:45-1			nd	2.0				

Treatment System

OUTFALL-04-01-20-2			8.7	5.0				
OUTFALL-04-01-20-1	5.0	1.0						
OUTFALL-04-02-20-2			7.4	5.0				
OUTFALL-04-02-20-1	4.9	1.0						
OUTFALL-04-05-20-1	5.3	1.0						
OUTFALL-04-05-20-2			7.4	5.0				
OUTFALL-04-06-20-2			7.4	5.0				
OUTFALL-04-06-20-1	5.0	1.0						
OUTFALL-04-07-20-2			6.8	5.0				
OUTFALL-04-07-20-1	5.9	1.0						
OUTFALL-04-08-20-2			7.8	5.0				
OUTFALL-04-08-20-1	5.6	1.0						
OUTFALL-04-09-20-2			7.2	5.0				
OUTFALL-04-09-20-1	4.5	1.0						
OUTFALL-04-12-20-2			7.5	5.0				
OUTFALL-04-12-20-1	4.4	1.0						
OUTFALL-04-13-20-2			7.3	5.0				
OUTFALL-04-13-20-1	20	1.0						
OUTFALL-04-14-20-2			7.5	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-04-14-20-1	4.4	1.0						
OUTFALL-04-15-20-2			7.2	5.0				
OUTFALL-04-15-20-1	4.3	1.0						
OUTFALL-04-16-20-1	4.8	1.0						
OUTFALL-04-16-20-2			7.7	5.0				
OUTFALL-04-19-20-2			8.4	5.0				
OUTFALL-04-19-20-1	5	1.0						O
OUTFALL-04-20-20-2			8.0	5.0				
OUTFALL-04-20-20-1	4	1.0						O
OUTFALL-04-21-20-2			8.4	5.0				
OUTFALL-04-21-20-1	5	1.0						O
OUTFALL-04-22-20-2			9.2	5.0				
OUTFALL-04-22-20-1	4	1.0						O
OUTFALL-04-23-20-2			8.2	5.0				
OUTFALL-04-23-20-1	4	1.0						O
OUTFALL-04-26-20-2			7.9	5.0				
OUTFALL-04-26-20-1	4.4	1.0						
OUTFALL-04-27-20-2			7.9	5.0				
OUTFALL-04-27-20-1	4.0	1.0						
OUTFALL-04-28-20-2			8.3	5.0				
OUTFALL-04-28-20-1	4.7	1.0						
OUTFALL-04-29-20-2			8.4	5.0				
OUTFALL-04-29-20-1	4.8	1.0						
OUTFALL-04-30-20-2			8.2	5.0				
OUTFALL-04-30-20-1	4.8	1.0						
Red Pond-04-06-20-08:20-1	360	10.0						D
Red Pond-04-13-20-08:20-1	360	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)
Red Pond-04-20-20-08:30-1	340	10.0						D
Red Pond-04-27-20-06:42-1	380	10.0						D

PLS Qualifier Codes:

- 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.
- H: Sample was analyzed past 45 day hold time, but within 45 days used by ATS for same method with EPA approval.
- O: Samples analyzed in outside laboratory, Ann Arbor Technical Services (ATS).

Data Transmittal Cover Page

**LABORATORY OPERATIONS
 CASE NARRATIVE**

Project Name: Pall Corporation
ATS Project Number: G001-002
ATS Report Number(s): Org_SRF_0422201,0424201

ATS Project Number: G001-002
Report Date: 5/5/20
SRF / SDG Numbers: 0422201,0424201

Project Description: This data report contains the results of forty-seven water samples, received by ATS between 4/22/20-4/24/20, to be analyzed for 1,4-Dioxane.

Case Narrative Summary

This case narrative applies to the following 48 samples that were received at Ann Arbor Technical Services, Inc. (ATS) between 4/22/20 and 4/24/20, and associated matrix-specific QA/QC:

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.

Client Sample Identification	Sample Date	Requested Turn Around Time	Analysis	Matrix
Received 4/22/20				
A2 Cleaning	4/8/20	Standard	1,4-Dioxane	Ground Water
MW-76s	4/8/20	Standard	1,4-Dioxane	Ground Water
MW-76l	4/8/20	Standard	1,4-Dioxane	Ground Water
MW-103s	4/8/20	Standard	1,4-Dioxane	Ground Water
MW-88 MB-LC	4/8/20	Standard	1,4-Dioxane	Ground Water
MW-84s	4/8/20	Standard	1,4-Dioxane	Ground Water
MW-78s	4/10/20	Standard	1,4-Dioxane	Ground Water
MW-110	4/10/20	Standard	1,4-Dioxane	Ground Water
MW-113	4/14/20	Standard	1,4-Dioxane	Ground Water
MW-81	4/14/20	Standard	1,4-Dioxane	Ground Water
MW-101	4/14/20	Standard	1,4-Dioxane	Ground Water
MW-107	4/16/20	Standard	1,4-Dioxane	Ground Water
MW-92	4/16/20	Standard	1,4-Dioxane	Ground Water
MW-KD-1d	4/20/20	Standard	1,4-Dioxane	Ground Water
MW-KD-1s	4/20/20	Standard	1,4-Dioxane	Ground Water
MW-BE-1d	4/20/20	Standard	1,4-Dioxane	Ground Water
MW-91	4/21/20	Standard	1,4-Dioxane	Ground Water
MW-98d	4/21/20	Standard	1,4-Dioxane	Ground Water
Outfall	4/19/20	Standard	Barium	Ground Water
Received 4/24/20				
MW-124d	4/21/20	Standard	1,4-Dioxane	Ground Water
MW-124s	4/21/20	Standard	1,4-Dioxane	Ground Water
MW-120d	4/20/20	Standard	1,4-Dioxane	Ground Water
MW-120s	4/20/20	Standard	1,4-Dioxane	Ground Water
MW-121s	4/14/20	Standard	1,4-Dioxane	Ground Water

Recipient: Ms. Sue Peters **Email:** Sue_Peters@Pall.com
FAX Number: _____

No. of Pages (including cover pg.): 62

From: Sarah Stubblefield **Email:** Sarah.Stubblefield@AnnArborTechnicalServices.com
 Senior Chemist / Lab Manager **FAX Number:** 734-995-3731

Additional Message: _____



Date: 5/5/20 **Signed:** _____

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

Client Sample Identification	Sample Date	Requested Turn Around Time	Analysis	Matrix
MW-121d	4/14/20	Standard	1,4-Dioxane	Ground Water
MW-90	4/16/20	Standard	1,4-Dioxane	Ground Water
MW-BE-1s	4/22/20	Standard	1,4-Dioxane	Ground Water
458 Clarendon	4/22/20	Standard	1,4-Dioxane	Ground Water
2819 Dexter Rd	4/22/20	Standard	1,4-Dioxane	Ground Water
MW-54d	4/22/20	Standard	1,4-Dioxane	Ground Water
MW-54s	4/22/20	Standard	1,4-Dioxane	Ground Water
MW-117	4/22/20	Standard	1,4-Dioxane	Ground Water
MW-129d	4/23/20	Standard	1,4-Dioxane	Ground Water
MW-128i	4/23/20	Standard	1,4-Dioxane	Ground Water
MW-129s	4/23/20	Standard	1,4-Dioxane	Ground Water
MW-130i	4/23/20	Standard	1,4-Dioxane	Ground Water
MW-130D	4/23/20	Standard	1,4-Dioxane	Ground Water
MW-130s	4/23/20	Standard	1,4-Dioxane	Ground Water
Outfall	4/19/20	Standard	1,4-Dioxane	Treated Water
Outfall	4/20/20	Standard	1,4-Dioxane	Treated Water
Outfall	4/21/20	Standard	1,4-Dioxane	Treated Water
Outfall	4/22/20	Standard	1,4-Dioxane	Treated Water
Outfall	4/23/20	Standard	1,4-Dioxane	Treated Water
MW-100	4/24/20	Standard	1,4-Dioxane	Ground Water
MW-122s	4/24/20	Standard	1,4-Dioxane	Ground Water
MW-122d	4/24/20	Standard	1,4-Dioxane	Ground Water
MW-123s	4/24/20	Standard	1,4-Dioxane	Ground Water
MW-123d	4/24/20	Standard	1,4-Dioxane	Ground Water

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 USEPA. 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).

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.

Sample Analysis

1,4-Dioxane Analysis (GC/MS): 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 quantitate 1,4-Dioxane. Samples were reported to project specific reporting limits.

Anomalies Noted:
 • None

Metals Analysis: Samples were analyzed in accordance with USEPA method 200.7 (Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry). An initial calibration with at least five levels was used to quantitate individual metals. 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

Upon receipt, samples were scheduled for the following analyses:

- | | |
|--|--|
| Analysis | Number of Samples |
| • 1,4-Dioxane (US EPA 1624) (Standard Turn) | • 47 + 4 Matrix Spike / 4 Matrix Spike Duplicate |
| • Metals (Barium) (US EPA 200.7) (Standard Turn) | • 1 |

Sample Receipt, Chain of Custody Records, and Holding Times

Samples were delivered directly to ATS by Pall Corporation staff. Samples were received in coolers, on ice, with proper chain of custody records. All samples were prepared and analyzed within the holding times cited in the corresponding analytical methods 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

Laboratory Fortified Blanks and Matrix Spikes

A laboratory fortified blank (LFB) / laboratory control sample (LCS) was analyzed with each QA/QC batch. The LCS/LFB's met the acceptance criteria with the following exceptions:

Laboratory Sample ID	Analytical Method	Constituent	Percent Recovery	Acceptance Limits
Laboratory Fortified Blank - QCORG0428201	US EPA 1624	1,4 Dioxane	80.3	85 - 115%
Laboratory Fortified Blank - QCORG0430201	US EPA 1624	1,4 Dioxane	81.6	85 - 115%

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:

- A2 Cleaning 4/6/20
- MW-76s 4/8/20
- MW-76i 4/8/20
- MW-84s 4/9/20
- MW-79s 4/10/20
- MW-110 4/10/20
- MW-113 4/14/20
- MW-81 4/14/20
- MW-101 4/14/20
- MW-107 4/16/20
- MW-KD-1d 4/20/20
- MW-KD-1s 4/20/20
- MW-BE-1d 4/20/20
- MW-91 4/21/20
- MW-BE-1s 4/22/20
- 456 Clarendon 4/22/20
- 2819 Dexter Rd 4/22/20
- MW-100 4/24/20
- MW-122s 4/24/20

Mark T. DeLong

/ May 5, 2020

Mark T. DeLong (Quality Assurance Coordinator)

Philip B. Simon

/ May 5, 2020

Philip B. Simon (Laboratory Director)

G001-002.20/CN_April.doc



G001-002.20/CN_April.doc



Inorganic Analysis Data Summary Sheet

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: Outfall

Sample Date: 4/19/20
 Sample Time: na
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Treated Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Metals Digestion	EPA 200.7	-	Yes	-	4/22/20	11:15	DMS
Total Barium	EPA 200.7	mg/L	0.23	0.001	4/23/20	20:05	DMS

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



Organic Analysis Data Summary Sheet

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: A2 CLEANING

Sample Date: 4/6/20
 Sample Time: 1:30 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.061	0.002	4/27/20	16:44	JEB

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-76s

Sample Date: 4/8/20
 Sample Time: 2:45 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.26	0.01	4/27/20	17:58	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-76i

Sample Date: 4/8/20
 Sample Time: 1:36 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.080	0.002	4/27/20	16:12	JEB

Comments

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

X:\0001-002\20ORG_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-103s

Sample Date: 4/8/20
 Sample Time: 11:45 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.073	0.001	4/27/20	18:56	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: ~~MW-83~~ MW-85

Sample Date: 4/9/20
 Sample Time: 12:54 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.56	0.01	4/27/20	19:40	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-84s

Sample Date: 4/9/20
 Sample Time: 9:00 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.41	0.01	4/30/20	16:15	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-79s

Sample Date: 4/10/20
 Sample Time: 10:10 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.29	0.01	4/27/20	21:07	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-110

Sample Date: 4/10/20
 Sample Time: 11:30 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.079	0.002	4/27/20	21:51	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-113

Sample Date: 4/14/20
 Sample Time: 11:23 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.094	0.002	4/27/20	22:35	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-81

Sample Date: 4/14/20
 Sample Time: 2:00 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.16	0.01	4/27/20	23:19	JEB

Comments

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-101

Sample Date: 4/14/20
 Sample Time: 12:40 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.090	0.002	4/28/20	0:02	JEB

Comments

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-107

Sample Date: 4/16/20
 Sample Time: 1:48 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.64	0.01	4/28/20	0:46	JEB

Comments

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-92

Sample Date: 4/16/20
 Sample Time: 12:17 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.071	0.001	4/28/20	1:30	JEB

Comments

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-KD-1d

Sample Date: 4/20/20
 Sample Time: 12:47 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 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	4/28/20	2:14	JEB

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-KD-1s

Sample Date: 4/20/20
 Sample Time: 11:40 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.12	0.002	4/28/20	2:57	JEB

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-BE-1d

Sample Date: 4/20/20
 Sample Time: 2:06 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 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	4/28/20	3:41	JEB

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

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rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-91

Sample Date: 4/21/20
 Sample Time: 12:52 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.18	0.01	4/28/20	4:25	JEB

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

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rev. 5/5/20

**Organic Analysis
Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-98d

Sample Date: 4/21/20
 Sample Time: 11:32 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/22/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.017	0.001	4/28/20	5:08	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0422201

Sample Identification: MW-124d

Sample Date: 4/21/20
 Sample Time: 8:59 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	4/27/20	14:17	JEB

Comments

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

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rev. 5/5/20

**Organic Analysis
Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-124s

Sample Date: 4/21/20
 Sample Time: 10:09 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	4/28/20	10:57	JEB

Comments

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

X:\0001-002\0000_horg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-120d

Sample Date: 4/20/20
 Sample Time: 9:31 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	<0.001	0.001	4/28/20	13:28	JEB

Comments

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

X:\0001-002\0000_horg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-120s

Sample Date: 4/20/20
 Sample Time: 10:22 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 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	4/28/20	14:12	JEB

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-121s

Sample Date: 4/14/20
 Sample Time: 8:52 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 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	4/28/20	14:56	JEB

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-121d

Sample Date: 4/14/20
 Sample Time: 10:02 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 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	4/28/20	15:40	JEB

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-90

Sample Date: 4/16/20
 Sample Time: 10:34 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 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	4/28/20	16:24	JEB

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

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-BE-1s

Sample Date: 4/22/20
 Sample Time: 3:01 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.67	0.01	4/28/20	17:03	JEB

Comments

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

X:\0001-002\20OR0_horg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: 456 CLARENDON

Sample Date: 4/22/20
 Sample Time: 1:45 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.56	0.01	4/28/20	17:52	JEB

Comments

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

X:\0001-002\20OR0_horg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: 2819 DEXTER RD.

Sample Date: 4/22/20
 Sample Time: 12:27 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.18	0.01	4/28/20	18:36	JEB

Comments

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

X:\0001-002\20OR0_horg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-54d

Sample Date: 4/22/20
 Sample Time: 11:07 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.023	0.001	4/28/20	19:19	JEB

Comments

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

X:\0001-002\20OR0_horg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-54s

Sample Date: 4/22/20
 Sample Time: 9:57 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 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	4/28/20	20:03	JEB

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

X:\G001-002\20OR03_inorg_SRF_0424_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-117

Sample Date: 4/22/20
 Sample Time: 8:42 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.004	0.001	4/28/20	20:47	JEB

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

X:\G001-002\20OR03_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-129d

Sample Date: 4/23/20
 Sample Time: 1:45 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 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	4/28/20	21:31	JEB

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

X:\G001-002\20OR03_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-129f

Sample Date: 4/23/20
 Sample Time: 12:37 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 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	4/28/20	22:15	JEB

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

X:\G001-002\20OR03_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-120s

Sample Date: 4/23/20
 Sample Time: 11:29 AM
 Sampled By: CEnt
 Laboratory Receipt Date: 4/24/20
 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	4/28/20	22:59	JEB

Comments

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

X:\001-002.20\ORG_horg_SRF_0424_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-130I

Sample Date: 4/23/20
 Sample Time: 10:07 AM
 Sampled By: CEnt
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.005	0.001	4/28/20	23:43	JEB

Comments

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

X:\001-002.20\ORG_horg_SRF_0424_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-130D

Sample Date: 4/23/20
 Sample Time: 8:58 AM
 Sampled By: CEnt
 Laboratory Receipt Date: 4/24/20
 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	4/29/20	0:28	JEB

Comments

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

X:\001-002.20\ORG_horg_SRF_0424_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-130s

Sample Date: 4/23/20
 Sample Time: 8:43 AM
 Sampled By: CEnt
 Laboratory Receipt Date: 4/24/20
 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	4/29/20	1:10	JEB

Comments

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

X:\001-002.20\ORG_horg_SRF_0424_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: OUTFALL

Sample Date: 4/19/20
 Sample Time: na
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.005	0.001	4/29/20	11:14	JEB

Comments

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

X:\G001-002\ORIG_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: OUTFALL

Sample Date: 4/20/20
 Sample Time: na
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.004	0.001	4/29/20	13:26	JEB

Comments

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

X:\G001-002\ORIG_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: OUTFALL

Sample Date: 4/21/20
 Sample Time: na
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.005	0.001	4/29/20	14:10	JEB

Comments

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

X:\G001-002\ORIG_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: OUTFALL

Sample Date: 4/22/20
 Sample Time: na
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.004	0.001	4/29/20	14:54	JEB

Comments

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

X:\G001-002\ORIG_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: OUTFALL

Sample Date: 4/23/20
 Sample Time: na
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.004	0.001	4/29/20	15:38	JEB

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

X:\G001-002\20\ORG_Invrg_SRF_0424_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-100

Sample Date: 4/24/20
 Sample Time: 2:29 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	2.2	0.04	4/29/20	16:22	JEB

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

X:\G001-002\20\APRIL\ORG_Invrg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-122s

Sample Date: 4/24/20
 Sample Time: 1:04 PM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.25	0.01	4/30/20	11:50	JEB

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

X:\G001-002\20\ORG_Invrg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
 Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
 Report Date: 5/5/20
 ATS SRF: 0424201

Sample Identification: MW-122d

Sample Date: 4/24/20
 Sample Time: 11:51 AM
 Sampled By: Client
 Laboratory Receipt Date: 4/24/20
 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	4/30/20	12:33	JEB

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

X:\G001-002\20\ORG_Invrg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
Report Date: 5/5/20
ATS SRF: 0424201

Sample Identification: MW-123s

Sample Date: 4/24/20
Sample Time: 10:23 AM
Sampled By: CEnt
Laboratory Receipt Date: 4/24/20
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	4/30/20	13:17	JEB

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

X:\G001-002\20\ORG_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Organic Analysis
Data Summary Sheet**

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

ATS Project: Pall Corporation #G001-002
Report Date: 5/5/20
ATS SRF: 0424201

Sample Identification: MW-123d

Sample Date: 4/24/20
Sample Time: 9:04 AM
Sampled By: CEnt
Laboratory Receipt Date: 4/24/20
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	4/30/20	14:01	JEB

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

X:\G001-002\20\ORG_inorg_SRF_0422_0424.xlsx

rev. 5/5/20

**Quality Assurance / Quality Control
Data Summary**

QC Batch Number: QCORG0427201
Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation #G001-002
Report Date: 5/5/20

Results of QA Samples run concurrently with project samples

REPLICATE ANALYSIS

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 MW-124d 4/21/20 Matrix Spike	0.008 mg/L	0.008 mg/L	0.008 mg/L	0.06

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	0.010 mg/L	0.009 mg/L	80.9
MW-124d 4/21/20 Matrix Spike	<0.001 mg/L	0.010 mg/L	0.008 mg/L	81.4
MW-124d 4/21/20 Matrix Spike Duplicate	<0.001 mg/L	0.010 mg/L	0.008 mg/L	80.9

BLANK ANALYSIS

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

Comments:
Calculations performed prior to rounding.
*Outside standard control limits.

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

**Quality Assurance / Quality Control
Data Summary**

QC Batch Number: QCORG0428201
Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation #G001-002
Report Date: 5/5/20

Results of QA Samples run concurrently with project samples

REPLICATE ANALYSIS

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 MW-124s 4/21/20 Matrix Spike	0.009 mg/L	0.009 mg/L	0.009 mg/L	3.7

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	0.010 mg/L	0.008 mg/L	80.3*
MW-124s 4/21/20 Matrix Spike	<0.001 mg/L	0.010 mg/L	0.009 mg/L	86.8
MW-124s 4/21/20 Matrix Spike Duplicate	<0.001 mg/L	0.010 mg/L	0.009 mg/L	90.0

BLANK ANALYSIS

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

Comments:
Calculations performed prior to rounding.
* Outside standard control limits

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

Quality Assurance / Quality Control
Data Summary

QC Batch Number: QCORG0429201
Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation #G001-002
Report Date: 5/5/20

Results of QA Samples run concurrently with project samples

REPLICATE ANALYSIS

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 Outfall 4/19/20 Matrix Spike	0.022 mg/L	0.021 mg/L	0.022 mg/L	1.6

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	0.010 mg/L	0.009 mg/L	92.6
Outfall 4/19/20 Matrix Spike	0.005 mg/L	0.020 mg/L	0.022 mg/L	80.4
Outfall 4/19/20 Matrix Spike Duplicate	0.005 mg/L	0.020 mg/L	0.021 mg/L	82.2

BLANK ANALYSIS

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

Comments:
Calculations performed prior to rounding.
* Outside standard control limits

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

Quality Assurance / Quality Control
Data Summary

QC Batch Number: QCORG0430201
Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation #G001-002
Report Date: 5/5/20

Results of QA Samples run concurrently with project samples

REPLICATE ANALYSIS

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 MW-123d 4/24/20 Matrix Spike	0.009 mg/L	0.011 mg/L	0.010 mg/L	14.7

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	0.010 mg/L	0.008 mg/L	83.6
MW-123d 4/24/20 Matrix Spike	<0.001 mg/L	0.010 mg/L	0.009 mg/L	93.0
MW-123d 4/24/20 Matrix Spike Duplicate	<0.001 mg/L	0.010 mg/L	0.011 mg/L	107.8

BLANK ANALYSIS

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

Comments:
Calculations performed prior to rounding.
* Outside standard control limits

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

Quality Assurance / Quality Control
Data Summary

QC Batch Number: QCINORG0422201
Parameter: Barium (EPA 200.7)

ATS Project: Pall Corporation #G001-002
Report Date: 5/5/20

Results of QA Samples run concurrently with project samples

REPLICATE ANALYSIS

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#E002-PFC Non-Project Specific Sample Matrix Spike	1.8 mg/L	1.8 mg/L	1.8 mg/L	2.5

SPIKES and/or QC CHECK SAMPLES

Sample/Analyte	Known Concentration	Spike Concentration	Analyzed Concentration	Recovery (percent)
Various Laboratory Fortified Blank	<0.001 mg/L	2.0 mg/L	1.8 mg/L	89.8
Non-Project Specific Sample Matrix Spike	0.066 mg/L	2.0 mg/L	1.8 mg/L	86.2
Non-Project Specific Sample Matrix Spike Duplicate	0.066 mg/L	2.0 mg/L	1.8 mg/L	84.0

BLANK ANALYSIS

Sample	Analyzed Concentration	QC Decision
Various Laboratory Reagent Blank	<0.001 mg/L	Acceptable

Comments:
Calculations performed prior to rounding.

Control Limits:
Recoveries
Laboratory Fortified Blank (85 - 115 %)
Matrix Spike (75 - 125 %)
Relative Range
Replicates (<20%)

CHAIN OF CUSTODY RECORD

DATE	TIME	BY	SAMPLE IDENTIFICATION	NO. OF SAMPLES	ANALYSIS				LABORATORY USE ONLY
					DATE/TIME	RECEIVED BY	DATE/TIME	RECEIVED BY	
4-15-20	13:30	✓	Bleed-through	1					
4-16-20	11:45	✓	MW-761	1					
4-16-20	12:26	✓	MW-761	1					
4-16-20	11:45	✓	MW-1035	1					
4-16-20	12:16	✓	MW-89	1					
4-16-20	01:00	✓	MW-895	1					
4-16-20	10:10	✓	MW-745	1					
4-16-20	11:20	✓	MW-110	1					
4-16-20	11:23	✓	MW-110	1					
4-16-20	11:20	✓	MW-81	1					
4-16-20	12:45	✓	MW-81	1					
4-16-20	12:15	✓	MW-107	1					
4-16-20	12:17	✓	MW-107	1					
4-20-20	12:47	✓	MW-10-14	1					
4-20-20	11:40	✓	MW-10-15	1					
4-20-20	11:06	✓	MW-10-15	1					
4-20-20	13:08	✓	MW-91	1					
4-20-20	11:22	✓	MW-91	1					
4-19-20		✓	Outfall	1					

