

## **CASE NARRATIVE**

**Monthly Data Pall Life Sciences**  
**Project: 1,4-Dioxane Remediation**  
**Date: July 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 samples were analyzed at Ann Arbor Technical Services (ATS) for 1,4-dioxane due to delayed service from manufacturer. In the sample analysis report these samples are designate as "O" in the comment section. The balance of the 1,4-dioxane samples and all bromate samples were analyzed at Pall Corporation's Environmental 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.

The delay in sample analysis was due to a catastrophic autosampler failure that took considerable time to isolate and fix. The manufacturer's representative made major repairs only to find out that these repairs did not entirely fix the problems. Samples were sent out to ATS for analysis after the service engineer was unable to eliminate all problems during his service call.

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 HCl acid-preserved vials to a pH of  $\leq 2$ , with the exception of the Pall ozone treatment samples. These samples have chemicals that, when mixed with the HCl acid, cause interferences and trap damage. 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 as long as 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, µg/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.

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## 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



Date: 8/10/20

Report Checked by: Raymond Woods



Date: 8/10/20

# Sample Analysis Report

July, 2020

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

Analyst Initials: \_\_\_\_\_  
Date: \_\_\_\_\_

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)
<b>Extraction Wells</b>								
<b>C3</b>								
DOLPH-07-13-20-10:20-1	140	10.0						D, O
TW-20-07-13-20-10:25-1	860	10.0						D, O
<b>D2</b>								
LB-4-07-13-20-09:45-1	470	10.0						D, O
TW-21-07-13-20-10:10-1	270	10.0						D, O
<b>E</b>								
TW-18-07-13-20-10:15-1	230	10.0						D, O
TW-19-07-13-20-09:40-1	580	10.0						O, D
TW-23-07-13-20-09:55-1	560	10.0						D, O
<b>Marshy</b>								
PW-1-07-13-20-10:18-1	460	10.0						D, O
<b>SW</b>								
TW-22-07-13-20-10:28-1	470	10.0						D, O
TW-28-07-13-20-10:30-1	430	10.0						D, O
<b>Monitoring Wells</b>								
<b>C3</b>								
MW-23-07-24-20-11:15-1	200	10.0						O, D
MW-25d-07-24-20-09:59-1	60	10.0						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)
<b>D0</b>								
110 Parkland Plaza-07-10-20-09:55-1	1	1.0						O
4141 Jackson Rd-07-10-20-11:22-1	2	1.0						O
A2 Cleaning Supply-07-08-20-11:25-1	57	5.0						D
MW-53d-07-08-20-09:59-01	nd	1.0						
MW-53i-07-08-20-11:09-1	25	1.0						
MW-53s-07-08-20-09:48-01	nd	1.0						
<b>D2</b>								
2819 Dexter Rd-07-27-20-11:50-1	150	10.0						O, D
MW-107-07-15-20-14:52-1	740	10.0						D, O
MW-113-07-15-20-13:33-1	100	10.0						D, O
MW-118-07-23-20-11:16-1	60	10.0						O, D
MW-120s-07-15-20-12:14-1	nd	1.0						O
MW-121s-07-15-20-08:34-1	nd	1.0						O
MW-122s-07-22-20-12:59-1	210	10.0						O, D
MW-123s-07-16-20-10:28-1	nd	1.0						O
MW-124s-07-22-20-10:17-1	nd	1.0						O
MW-129i-07-20-20-10:26-1	nd	1.0						O
MW-129s-07-20-20-09:16-1	nd	1.0						O
MW-134i-07-28-20-11:51-1	7	1.0						O
MW-134s-07-28-20-13:01-1	9	1.0						O
MW-54d-07-16-20-12:58-1	39	1.0						O
MW-54s-07-16-20-11:49-1	nd	1.0						O
MW-92-07-21-20-10:56-1	60	10.0						O, D
MW-94s-07-28-20-14:23-1	650	10.0						O, D
MW-BE-1d-07-21-20-12:29-1	480	10.0						O, D
MW-BE-1s-07-21-20-13:40-1	640	10.0						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-KD-1d-07-27-20-14:20-1	370	10.0						O, D
MW-KD-1s-07-27-20-13:09-1	130	10.0						O, D
<b>E</b>								
MW-100-07-22-20-14:20-1	2000	40.0						O, D
MW-101-07-14-20-11:36-1	80	10.0						D, O
MW-103d-07-09-20-12:31-1	6	1.0						O
MW-103s-07-09-20-12:04-1	70	10.0						O, D
MW-104-07-14-20-09:02-1	19	1.0						O
MW-106d-07-23-20-08:39-1	nd	1.0						O
MW-106s-07-23-20-09:54-1	240	10.0						O, D
MW-108d-07-23-20-13:58-1	690	10.0						O, D
MW-108s-07-23-20-12:46-1	230	10.0						O, D
MW-110-07-14-20-10:19-1	100	10.0						D, O
MW-112d-07-09-20-09:59-1	1	1.0						O
MW-112i-07-09-20-11:10-1	9	1.0						O
MW-112s-07-09-20-09:47-1	nd	1.0						O
MW-115-07-27-20-10:27-1	470	10.0						O, D
MW-116-07-27-20-09:08-1	460	10.0						O, D
MW-119-07-17-20-11:15-1	26	1.0						O
MW-120d-07-15-20-11:03-1	nd	1.0						O
MW-121d-07-15-20-09:43-1	2	1.0						O
MW-122d-07-22-20-11:46-1	nd	1.0						O
MW-123d-07-16-20-09:05-1	nd	1.0						O
MW-124d-07-22-20-09:06-1	nd	1.0						O
MW-129d-07-20-20-11:39-1	2	1.0						O
MW-134d-07-28-20-10:39-1	6	1.0						O
MW-135-07-21-20-09:26-1	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-69-07-28-20-09:12-1	nd	1.0						O
MW-76i-07-08-20-13:01-1	84	5.0						D
MW-76s-07-08-20-14:12-1	250	5.0						D
MW-79d-07-14-20-12:58-1	nd	1.0						O
MW-79s-07-14-20-14:08-1	280	10.0						D, O
MW-81-07-17-20-13:55-1	150	10.0						D, O
MW-84s-07-09-20-13:57-1	330	10.0						O, D
MW-85-07-16-20-14:23-1	560	10.0						D, O
MW-88-07-17-20-12:34-1	130	10.0						D, O
MW-89-07-17-20-08:33-1	1	1.0						O
MW-90-07-17-20-09:54-1	5	1.0						O
MW-97d-07-20-20-13:05-1	nd	1.0						O
MW-97s-07-20-20-14:16-1	nd	1.0						O
<b>Marshy</b>								
AMW-2-07-24-20-10:45-1	180	10.0						O, D
MOW-1-07-24-20-11:30-1	560	10.0						O, D
PMW-4-07-24-20-11:48-1	580	20.0						O, D
<b>SH</b>								
MW-25s-07-24-20-10:10-1	380	20.0						O, D
<b>Surface Water</b>								
<b>Not Applicable</b>								
HC/HR-07-01-20-07:45-1			nd	2.0				
HC/HR-07-02-20-08:00-1			nd	2.0				
HC/HR-07-06-20-08:18-1			nd	2.0				
HC/HR-07-07-20-07:54-1			nd	2.0				
HC/HR-07-08-20-07:20-01			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-07-09-20-07:39-1			nd	2.0				
HC/HR-07-10-20-07:33-1			nd	2.0				
HC/HR-07-13-20-08:10-1			nd	2.0				
HC/HR-07-14-20-08:10-1			nd	2.0				
HC/HR-07-15-20-09:35-1			nd	2.0				
HC/HR-07-16-20-08:30-1			nd	2.0				
HC/HR-07-17-20-08:10-1			nd	2.0				
HC/HR-07-20-20-09:20-1			nd	2.0				
HC/HR-07-21-20-08:00-1			nd	2.0				
HC/HR-07-22-20-08:05-1			nd	2.0				
HC/HR-07-23-20-08:15-1			nd	2.0				
HC/HR-07-24-20-10:20-1			nd	2.0				
HC/HR-07-27-20-08:10-1			nd	2.0				
HC/HR-07-28-20-08:15-1			nd	2.0				
HC/HR-07-29-20-09:20-1			nd	2.0				
HC/HR-07-30-20-08:05-1			nd	2.0				
HC/HR-07-31-20-07:50-1			nd	2.0				
<b>Treatment System</b>								
OUTFALL-07-01-20-1	5.2	1.0						
OUTFALL-07-01-20-2			7.0	5.0				
OUTFALL-07-05-20-1	5.4	1.0						
OUTFALL-07-05-20-2			8.1	5.0				
OUTFALL-07-06-20-1	5.4	1.0						
OUTFALL-07-06-20-2			8.1	5.0				
OUTFALL-07-07-20-01	5.3	1.0						
OUTFALL-07-07-20-02			7.5	5.0				
OUTFALL-07-08-20-2			6.0	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-07-08-20-1	5.2	1.0						
OUTFALL-07-09-20-2			8.4	5.0				
OUTFALL-07-09-20-1	5	1.0						O
OUTFALL-07-12-20-2			7.6	5.0				
OUTFALL-07-12-20-1	5	1.0						O
OUTFALL-07-13-20-2			8.8	5.0				
OUTFALL-07-13-20-1	5	1.0						O
OUTFALL-07-14-20-2			8.8	5.0				
OUTFALL-07-14-20-1	5	1.0						O
OUTFALL-07-15-20-2			9.2	5.0				
OUTFALL-07-15-20-1	4	1.0						O
OUTFALL-07-16-20-2			9.0	5.0				
OUTFALL-07-16-20-1	5	1.0						O
OUTFALL-07-19-20-2			8.3	5.0				
OUTFALL-07-19-20-1	5	1.0						O
OUTFALL-07-20-20-2			8.3	5.0				
OUTFALL-07-20-20-1	5	1.0						O
OUTFALL-07-21-20-2			8.6	5.0				
OUTFALL-07-21-20-1	5	1.0						O
OUTFALL-07-22-20-2			8.6	5.0				
OUTFALL-07-22-20-1	5	1.0						O
OUTFALL-07-23-20-2			8.9	5.0				
OUTFALL-07-23-20-1	5	1.0						O
OUTFALL-07-26-20-2			9.1	5.0				
OUTFALL-07-26-20-1	4	1.0						O
OUTFALL-07-27-20-2			8.2	5.0				
OUTFALL-07-27-20-1	5	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)
OUTFALL-07-28-20-2			8.2	5.0				
OUTFALL-07-28-20-1	5	1.0						O
OUTFALL-07-29-20-2			7.6	5.0				
OUTFALL-07-29-20-1	4	1.0						O
OUTFALL-07-30-20-1	5	1.0						O
OUTFALL-07-30-20-2			8.5	5.0				
Red Pond-07-06-20-08:45-1	380	10.0						D
Red Pond-07-13-20-08:30-1	360	10.0						O, D
Red Pond-07-20-20-09:46-1	370	10.0						O, D
Red Pond-07-27-20-08:35-1	340	10.0						O, 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**

**Project Name:** Pall Corporation  
**ATS Project Number:** G001-002  
**ATS Report Number(s):** Org\_SRF\_0724201

**Project Description:** This data report contains the results of seventy-one water samples, received by ATS on 7/24/20, to be analyzed for 1,4-Dioxane.

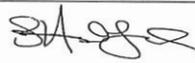
We certify that the sample analyses for this report have been conducted in accordance with guidelines provided in the referenced standard test method, and are consistent with detailed procedures described in a written Standard Operating Procedure specific to the ATS Laboratories, as required by USEPA. 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:** [Sue\\_Peters@Pall.com](mailto:Sue_Peters@Pall.com)  
**FAX Number:** \_\_\_\_\_

**No. of Pages (including cover pg.):** 85

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

**Additional Message:** \_\_\_\_\_  
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**Date:** 7/30/20 **Signed:** \_\_\_\_\_

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**LABORATORY OPERATIONS  
 CASE NARRATIVE**

**ATS Project Number:** G001-002  
**Report Date:** 7/30/20  
**SRF / SDG Numbers:** 0724201

**Case Narrative Summary**

This case narrative applies to the following samples that was received at Ann Arbor Technical Services, Inc. (ATS) on 7/24/20, and associated matrix-specific QA/QC:

Client Sample Identification	Sample Date	Requested Turn Around Time	Analysis	Matrix
Received 7/24/20				
Outfall 001	7/9/20	Rush	1,4-Dioxane	Treated Water
110 Parkland Plaza	7/10/20	Rush	1,4-Dioxane	Ground Water
4141 Jackson Rd.	7/10/20	Rush	1,4-Dioxane	Ground Water
MW-112s	7/9/20	Rush	1,4-Dioxane	Ground Water
MW-112d	7/9/20	Rush	1,4-Dioxane	Ground Water
MW-112i	7/9/20	Rush	1,4-Dioxane	Ground Water
MW-103s	7/9/20	Rush	1,4-Dioxane	Ground Water
MW-103d	7/9/20	Rush	1,4-Dioxane	Ground Water
MW-84s	7/9/20	Rush	1,4-Dioxane	Ground Water
Red Pond	7/13/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/12/20	Rush	1,4-Dioxane	Treated Water
TW-19	7/13/20	Rush	1,4-Dioxane	Ground Water
LB-4	7/13/20	Rush	1,4-Dioxane	Ground Water
TW-23	7/13/20	Rush	1,4-Dioxane	Ground Water
TW-21	7/13/20	Rush	1,4-Dioxane	Ground Water
TW-18	7/13/20	Rush	1,4-Dioxane	Ground Water
DOLPHI	7/13/20	Rush	1,4-Dioxane	Ground Water
PW-1	7/13/20	Rush	1,4-Dioxane	Ground Water
TW-20	7/13/20	Rush	1,4-Dioxane	Ground Water
TW-22	7/13/20	Rush	1,4-Dioxane	Ground Water
TW-28	7/13/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/13/20	Rush	1,4-Dioxane	Treated Water
MW-104	7/14/20	Rush	1,4-Dioxane	Ground Water
MW-110	7/14/20	Rush	1,4-Dioxane	Ground Water

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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-101	7/14/20	Rush	1,4-Dioxane	Ground Water
MW-79d	7/14/20	Rush	1,4-Dioxane	Ground Water
MW-78s	7/14/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/14/20	Rush	1,4-Dioxane	Treated Water
MW-121s	7/15/20	Rush	1,4-Dioxane	Ground Water
MW-121d	7/15/20	Rush	1,4-Dioxane	Ground Water
MW-120d	7/15/20	Rush	1,4-Dioxane	Ground Water
MW-120s	7/15/20	Rush	1,4-Dioxane	Ground Water
MW-113	7/15/20	Rush	1,4-Dioxane	Ground Water
MW-107	7/15/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/15/20	Rush	1,4-Dioxane	Treated Water
MW-123d	7/16/20	Rush	1,4-Dioxane	Ground Water
MW-123S	7/16/20	Rush	1,4-Dioxane	Ground Water
MW-54s	7/16/20	Rush	1,4-Dioxane	Ground Water
MW-54d	7/16/20	Rush	1,4-Dioxane	Ground Water
MW-45	7/16/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/16/20	Rush	1,4-Dioxane	Treated Water
MW-89	7/17/20	Rush	1,4-Dioxane	Ground Water
MW-90	7/17/20	Rush	1,4-Dioxane	Ground Water
MW-119	7/17/20	Rush	1,4-Dioxane	Ground Water
MW-88	7/17/20	Rush	1,4-Dioxane	Ground Water
MW-81	7/17/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/19/20	Rush	1,4-Dioxane	Treated Water
Red Pond	7/20/20	Rush	1,4-Dioxane	Ground Water
MW-129s	7/20/20	Rush	1,4-Dioxane	Ground Water
MW-129d	7/20/20	Rush	1,4-Dioxane	Ground Water
MW-129d	7/20/20	Rush	1,4-Dioxane	Ground Water
MW-97d	7/20/20	Rush	1,4-Dioxane	Ground Water
MW-97s	7/20/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/20/20	Rush	1,4-Dioxane	Treated Water
MW-135	7/21/20	Rush	1,4-Dioxane	Ground Water
MW-92	7/21/20	Rush	1,4-Dioxane	Ground Water
MW-BE-1d	7/21/20	Rush	1,4-Dioxane	Ground Water
MW-BE-1s	7/21/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/21/20	Rush	1,4-Dioxane	Treated Water
MW-124d	7/22/20	Rush	1,4-Dioxane	Ground Water
MW-124s	7/22/20	Rush	1,4-Dioxane	Ground Water
MW-122d	7/22/20	Rush	1,4-Dioxane	Ground Water
MW-122s	7/22/20	Rush	1,4-Dioxane	Ground Water
MW-100	7/22/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/22/20	Rush	1,4-Dioxane	Treated Water
MW-106d	7/23/20	Rush	1,4-Dioxane	Ground Water

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Client Sample Identification	Sample Date	Requested Turn Around Time	Analysis	Matrix
MW-106s	7/23/20	Rush	1,4-Dioxane	Ground Water
MW-118	7/23/20	Rush	1,4-Dioxane	Ground Water
MW-108s	7/23/20	Rush	1,4-Dioxane	Ground Water
MW-108d	7/23/20	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/23/20	Rush	1,4-Dioxane	Treated Water

Upon receipt, samples were scheduled for the following analyses:

- |   |  |
|---|--|
| <b>Analysis</b>                             | <b>Number of Samples</b>                         |
| • 1,4-Dioxane (US EPA 1624) (Standard Turn) | • 71 + 4 Matrix Spike / 4 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).

**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

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**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

**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:

- 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
MW-110 7/14/20 Matrix Spike Dup	1,4-Dioxane	73.7	80-120%
MW-92 7/7/20 Matrix Spike	1,4-Dioxane	76.1	80-120%
MW-118 7/23/20 Matrix Spike	1,4-Dioxane	76.5	80-120%

**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:

- MW-103S 7/9/20
- RED POND 7/13/20
- LB-4 7/13/20
- TW-21 7/13/20
- DOLPH 7/13/20
- TW-20 7/13/20
- TW-28 7/13/20
- MW-101 7/14/20
- MW-113 7/15/20
- MW-85 7/16/20
- MW-81 7/17/20
- MW-92 7/21/20
- MW-BE-1s 7/21/20
- MW-100 7/22/20
- MW-118 7/23/20
- MW-1084 7/23/20
- MW-84S 7/9/20
- TW-19 7/13/20
- TW-23 7/13/20
- TW-18 7/13/20
- PW-1 7/13/20
- TW-22 7/13/20
- MW-110 7/14/20
- MW-79s 7/14/20
- MW-107 7/15/20
- MW-88 7/17/20
- RED POND 7/20/20
- MW-BE-1d 7/21/20
- MW-122s 7/22/20
- MW-106s 7/23/20
- MW-108s 7/23/20

*Mark DeLong*

/ July 30, 2020

Mark T. DeLong (Quality Assurance Coordinator)

*Philip B. Simon*

/ July 30, 2020

Philip B. Simon (Laboratory Director)

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**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: 7/30/20  
ATS SR#: 0724201

Sample Identification: Outfall 001

Sample Date: 7/9/20  
Sample Time: na  
Sampled By: Client  
Laboratory Receipt Date: 7/24/20  
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	7/24/20	19.27	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: 7/30/20  
ATS SR#: 0724201

Sample Identification: 110 Parkland Plaza

Sample Date: 7/10/20  
Sample Time: 9:55 AM  
Sampled By: Client  
Laboratory Receipt Date: 7/24/20  
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	7/24/20	20.01	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: 7/30/20
ATS SRF: 0724201

Sample Identification: 4141 Jackson Rd.

Sample Date: 7/10/20
Sample Time: 11:22 AM
Sampled By: Client
Laboratory Receipt Date: 7/24/20
Sample Matrix: Water

Table with 8 columns: Parameter, Method, Units, Result, Reporting Limit, Analysis Date, Analysis Time, Analyzed By. Row 1: 1,4-Dioxane, EPA 1624, mg/L, 0.002, 0.001, 7/24/20, 20:55, JEB

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

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rev. 7/30/20



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: 7/30/20
ATS SRF: 0724201

Sample Identification: MW-112s

Sample Date: 7/9/20
Sample Time: 9:47 AM
Sampled By: Client
Laboratory Receipt Date: 7/24/20
Sample Matrix: Water

Table with 8 columns: Parameter, Method, Units, Result, Reporting Limit, Analysis Date, Analysis Time, Analyzed By. Row 1: 1,4-Dioxane, EPA 1624, mg/L, <0.001, 0.001, 7/24/20, 21:39, JEB

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

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rev. 7/30/20



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: 7/30/20
ATS SRF: 0724201

Sample Identification: MW-112d

Sample Date: 7/9/20
Sample Time: 9:59 AM
Sampled By: Client
Laboratory Receipt Date: 7/24/20
Sample Matrix: Water

Table with 8 columns: Parameter, Method, Units, Result, Reporting Limit, Analysis Date, Analysis Time, Analyzed By. Row 1: 1,4-Dioxane, EPA 1624, mg/L, 0.001, 0.001, 7/24/20, 22:23, JEB

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

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rev. 7/30/20



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: 7/30/20
ATS SRF: 0724201

Sample Identification: MW-112i

Sample Date: 7/9/20
Sample Time: 11:10 AM
Sampled By: Client
Laboratory Receipt Date: 7/24/20
Sample Matrix: Water

Table with 8 columns: Parameter, Method, Units, Result, Reporting Limit, Analysis Date, Analysis Time, Analyzed By. Row 1: 1,4-Dioxane, EPA 1624, mg/L, 0.009, 0.001, 7/24/20, 23:07, JEB

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

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**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-103s

Sample Date: 7/9/20  
 Sample Time: 12:04 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.07	0.01	7/24/20	23:51	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-103d

Sample Date: 7/9/20  
 Sample Time: 12:31 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/25/20	2:03	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-84s

Sample Date: 7/9/20  
 Sample Time: 1:57 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.33	0.01	7/25/20	02:47	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Red Pond

Sample Date: 7/13/20  
 Sample Time: 8:30 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.36	0.01	7/25/20	3:31	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: Outfall 001

Sample Date: 7/12/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/25/20	4:15	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: TW-19

Sample Date: 7/13/20  
 Sample Time: 9:40 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.58	0.01	7/25/20	04:59	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: LB-4

Sample Date: 7/13/20  
 Sample Time: 9:45 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.47	0.001 c,c/d	7/25/20	5:43	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: TW-23

Sample Date: 7/13/20  
 Sample Time: 9:55 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.58	0.01	7/25/20	6:27	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: TW-21

Sample Date: 7/13/20  
 Sample Time: 10:10 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.27	0.01	7/25/20	7:11	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: TW-18

Sample Date: 7/13/20  
 Sample Time: 10:15 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.23	0.01	7/25/20	7:55	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: DOLPH

Sample Date: 7/13/20  
 Sample Time: 10:20 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.14	0.01	7/25/20	8:39	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: PW-1

Sample Date: 7/13/20  
 Sample Time: 10:18 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.46	0.01	7/25/20	9:23	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: TW-20

Sample Date: 7/13/20  
 Sample Time: 10:25 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.86	0.01	7/25/20	10:06	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: TW-22

Sample Date: 7/13/20  
 Sample Time: 10:28 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.47	0.01	7/25/20	10:50	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: TW-28

Sample Date: 7/13/20  
 Sample Time: 10:30 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.43	0.01	7/25/20	16:58	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Outfall 001

Sample Date: 7/13/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/25/20	17:42	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-104

Sample Date: 7/14/20  
 Sample Time: 9:02 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.019	0.001	7/25/20	18:26	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-110

Sample Date: 7/14/20  
 Sample Time: 10:19 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.10	0.01	7/25/20	19:09	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-101

Sample Date: 7/14/20  
 Sample Time: 11:36 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.08	0.01	7/25/20	21:22	JEB

**Comments**

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

X:\G001-002\20SRF\_0724201\ORG\_SRF\_0724201

rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-79d

Sample Date: 7/14/20  
 Sample Time: 12:58 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/25/20	22:06	JEB

**Comments**

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

X:\G001-002\20SRF\_0724201\ORG\_SRF\_0724201

rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-79s

Sample Date: 7/14/20  
 Sample Time: 2:08 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.28	0.01	7/25/20	22:50	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Outfall 001

Sample Date: 7/14/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/25/20	23:34	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-121s

Sample Date: 7/15/20  
 Sample Time: 8:34 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/26/20	0:18	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-121d

Sample Date: 7/15/20  
 Sample Time: 9:43 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/26/20	1:02	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: MW-120d

Sample Date: 7/15/20  
 Sample Time: 11:03 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/26/20	1:45	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: MW-120s

Sample Date: 7/15/20  
 Sample Time: 12:14 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/26/20	02:29	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: MW-113

Sample Date: 7/15/20  
 Sample Time: 1:33 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.10	0.01	7/26/20	3:14	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: MW-107

Sample Date: 7/15/20  
 Sample Time: 2:52 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.74	0.01	7/26/20	3:57	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: Outfall 001

Sample Date: 7/15/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/26/20	4:41	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: MW-123d

Sample Date: 7/16/20  
 Sample Time: 9:05 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/26/20	5:25	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: MW-123S

Sample Date: 7/16/20  
 Sample Time: 10:28 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/26/20	6:09	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SR#: 0724201

Sample Identification: MW-54s

Sample Date: 7/16/20  
 Sample Time: 11:49 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/26/20	6:53	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-54d

Sample Date: 7/16/20  
 Sample Time: 12:58 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.039	0.001	7/26/20	7:37	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-85

Sample Date: 7/16/20  
 Sample Time: 2:23 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	6:21	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Outfall 001

Sample Date: 7/16/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/27/20	16:54	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-89

Sample Date: 7/17/20  
 Sample Time: 8:33 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/27/20	17:38	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-90

Sample Date: 7/17/20  
 Sample Time: 9:54 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.005	0.001	7/27/20	18:22	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-119

Sample Date: 7/17/20  
 Sample Time: 11:15 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.026	0.001	7/27/20	19:06	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-88

Sample Date: 7/17/20  
 Sample Time: 12:34 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.13	0.01	7/27/20	19:49	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-81

Sample Date: 7/17/20  
 Sample Time: 1:55 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.15	0.01	7/27/20	20:33	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Outfall 001

Sample Date: 7/19/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/27/20	21:17	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Red Pond

Sample Date: 7/20/20  
 Sample Time: 9:46 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.37	0.01	7/27/20	22:01	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-129s

Sample Date: 7/20/20  
 Sample Time: 9:16 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/27/20	22:45	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-129i

Sample Date: 7/20/20  
 Sample Time: 10:26 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/27/20	23:30	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-129d

Sample Date: 7/20/20  
 Sample Time: 11:39 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	0:14	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-97d

Sample Date: 7/20/20  
 Sample Time: 1:05 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	0:58	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-97s

Sample Date: 7/20/20  
 Sample Time: 2:16 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	1:42	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Outfall 001

Sample Date: 7/20/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	2:26	JEB

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-135

Sample Date: 7/21/20  
 Sample Time: 9:26 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	3:10	JEB

**Comments**

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

X:\G001-002\20SRF\_0724201\ORG\_SRF\_0724201

rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-92

Sample Date: 7/21/20  
 Sample Time: 10:56 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.06	0.01	7/28/20	3:53	JEB

**Comments**

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

X:\G001-002\20SRF\_0724201\ORG\_SRF\_0724201

rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-BE-1d

Sample Date: 7/21/20  
 Sample Time: 12:29 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.48	0.01	7/28/20	6:05	JEB

**Comments**

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

X:\G001-002\20SRF\_0724201\ORG\_SRF\_0724201

rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-BE-1s

Sample Date: 7/21/20  
 Sample Time: 1:40 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.64	0.01	7/28/20	6:49	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Outfall 001

Sample Date: 7/21/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	7:33	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-124d

Sample Date: 7/22/20  
 Sample Time: 9:06 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	8:17	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-124s

Sample Date: 7/22/20  
 Sample Time: 10:17 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	21:06	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-122d

Sample Date: 7/22/20  
 Sample Time: 11:45 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/28/20	21:50	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-122s

Sample Date: 7/22/20  
 Sample Time: 12:59 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.21	0.01	7/28/20	22:34	JEB

**Comments**

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

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rev. 7/20/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-100

Sample Date: 7/22/20  
 Sample Time: 2:20 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	2.0	0.04	7/28/20	23:18	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Outfall 001

Sample Date: 7/22/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/29/20	0:02	JEB

**Comments**

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

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rev. 7/20/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-106d

Sample Date: 7/23/20  
 Sample Time: 8:39 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/29/20	0:48	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-106s

Sample Date: 7/23/20  
 Sample Time: 9:54 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.24	0.01	7/29/20	1:30	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-118

Sample Date: 7/23/20  
 Sample Time: 11:16 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.06	0.01	7/29/20	02:14	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-108s

Sample Date: 7/23/20  
 Sample Time: 12:48 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.23	0.01	7/29/20	4:26	JEB

**Comments**

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

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rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: MW-108d

Sample Date: 7/23/20  
 Sample Time: 1:58 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis 1,4-Dioxane	EPA 1624	mg/L	0.69	0.01	7/29/20	05:10	JEB

**Comments**

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

X:\G001-002\05SRF\_0724201\ORG\_SRF\_0724201

rev. 7/30/20

**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: 7/30/20  
 ATS SRF: 0724201

Sample Identification: Outfall 001

Sample Date: 7/23/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/24/20  
 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	7/29/20	5:54	JEB

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

X:\G001-002\20\SRF\_0724201\ORG\_SRF\_0724201

rev. 7/30/20

**Quality Assurance / Quality Control  
 Data Summary**

QC Batch Number: QCORG0724201  
 Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation #G001-002  
 Report Date: 7/30/20

Results of QA Samples run concurrently with project samples

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 MW-103s 7/9/20 Matrix Spks	0.28 mg/L	0.28 mg/L	0.28 mg/L	0.9

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	87.7
MW-103s 7/9/20 Matrix Spike	0.068 mg/L	0.20 mg/L	0.28 mg/L	98.1
MW-103s 7/9/20 Matrix Spike Duplicate	0.068 mg/L	0.20 mg/L	0.28 mg/L	97.4

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%)

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rev 7/30/20

**Quality Assurance / Quality Control  
 Data Summary**

QC Batch Number: QCORG0725201  
 Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation #G001-002  
 Report Date: 7/30/20

Results of QA Samples run concurrently with project samples

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 MW-110 7/14/20 Matrix Spike	0.27 mg/L	0.25 mg/L	0.28 mg/L	7.3

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	88.8
MW-110 7/14/20 Matrix Spike	0.10 mg/L	0.20 mg/L	0.27 mg/L	81.2
MW-110 7/14/20 Matrix Spike Duplicate	0.10 mg/L	0.20 mg/L	0.25 mg/L	73.7*

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: QCORG0727201  
 Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation #G001-002  
 Report Date: 7/30/20

Results of QA Samples run concurrently with project samples

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 MW-92 7/21/20 Matrix Spike	0.21 mg/L	0.23 mg/L	0.22 mg/L	8.6

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	94.2
MW-92 7/21/20 Matrix Spike	0.06 mg/L	0.20 mg/L	0.21 mg/L	76.1*
MW-92 7/21/20 Matrix Spike Duplicate	0.06 mg/L	0.20 mg/L	0.23 mg/L	85.5

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%)

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rev 7/30/20

X:\G001-002\20\SRF\_0724201\ORG\_SRF\_0724201

rev 7/30/20

**Quality Assurance / Quality Control  
Data Summary**

QC Batch Number: QCORG0728201  
Parameter: 1,4-Dioxane (EPA 1624)

ATS Project: Pall Corporation #G001-002  
Report Date: 7/30/20

Results of QA Samples run concurrently with project samples

**REPLICATE ANALYSIS**

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 MW-118 7/23/20 Matrix Spike	0.21 mg/L	0.24 mg/L	0.22 mg/L	15.0

**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	87.8
MW-118 7/23/20 Matrix Spike	0.06 mg/L	0.20 mg/L	0.21 mg/L	76.5*
MW-118 7/23/20 Matrix Spike Duplicate	0.06 mg/L	0.20 mg/L	0.24 mg/L	93.5

**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%)



**CHAIN OF CUSTODY RECORD**

1004  
Page 1

PROJECT NUMBER: **Need by End of July  
Pall Corp. Standard Turn Around**

LABORATORY INFORMATION: [Blank]

CLIENT INFORMATION: [Blank]

ANALYSIS: [Blank]

DATE	TIME	BY	REMARKS	ANALYSIS
7-9-20	09:05	✓	Outfall 001	2
7-10-20	11:22	✓	118 Station Plaza	2
7-10-20	11:26	✓	118 Jackson Rd	2
7-9-20	9:47	✓	m0-112 s	2
7-9-20	9:49	✓	m0-112 d	2
7-9-20	11:10	✓	m0-112 i	2
7-9-20	12:04	✓	m0-103 s	1
7-9-20	12:01	✓	m0-103 d	2
7-9-20	11:51	✓	m0-B14	1
7-9-20	7:26	✓	Red Pond	1
7-9-20	---	✓	Outfall 001	2
7-10-20	09:05	✓	TUO-19	1
7-10-20	09:05	✓	LP-14	1
7-10-20	9:05	✓	TUO-22	1
7-10-20	10:10	✓	TUO-21	1
7-10-20	10:19	✓	TUO-18	1
7-10-20	10:10	✓	Red Pond	1
7-10-20	10:26	✓	TUO-20	1
7-10-20	10:26	✓	TUO-22	1



**CHAIN OF CUSTODY RECORD**

2047  
Page 1

PROJECT NUMBER: **Need by End of July  
Pall Corp. Standard Turn Around**

LABORATORY INFORMATION: [Blank]

CLIENT INFORMATION: [Blank]

ANALYSIS: [Blank]

DATE	TIME	BY	REMARKS	ANALYSIS
7-10-20	10:30	✓	TUO-22	1
7-10-20	---	✓	Outfall 001	2
7-10-20	09:05	✓	m0-112 s	2
7-10-20	09:04	✓	m0-110	1
7-10-20	11:26	✓	m0-110 i	1
7-10-20	12:15	✓	m0-74 d	2
7-10-20	14:08	✓	m0-74 s	1
7-10-20	---	✓	Outfall 001	2
7-10-20	8:26	✓	m0-121 s	2
7-10-20	9:43	✓	m0-121 d	2
7-10-20	11:04	✓	m0-120 d	2
7-10-20	12:14	✓	m0-120 s	2
7-10-20	13:33	✓	m0-115	1
7-10-20	10:52	✓	m0-107	1
7-10-20	---	✓	Outfall 001	2
7-10-20	9:05	✓	m0-123 s	2
7-10-20	10:26	✓	m0-123 d	2
7-10-20	11:04	✓	m0-124 s	2
7-10-20	12:58	✓	m0-114 d	1
7-10-20	14:23	✓	m0-85	1



**CHAIN OF CUSTODY RECORD**

2047  
Page 1

PROJECT NUMBER: **Need by End of July  
Pall Corp. Standard Turn Around**

LABORATORY INFORMATION: [Blank]

CLIENT INFORMATION: [Blank]

ANALYSIS: [Blank]

DATE	TIME	BY	REMARKS	ANALYSIS
7-10-20	09:05	✓	Outfall 001	2
7-10-20	09:05	✓	m0-89	2
7-10-20	9:16	✓	m0-90	2
7-10-20	11:15	✓	m0-19	1
7-10-20	12:18	✓	m0-BE	1
7-10-20	10:26	✓	m0-B1	1
7-10-20	---	✓	Outfall 001	2
7-10-20	9:06	✓	Red Pond	1
7-10-20	9:16	✓	m0-129 s	2
7-10-20	10:26	✓	m0-129 i	2
7-10-20	11:29	✓	m0-129 d	2
7-10-20	10:05	✓	m0-97 s	2
7-10-20	10:16	✓	m0-97 s	2
7-10-20	---	✓	Outfall 001	2
7-10-20	9:06	✓	m0-135	2
7-10-20	10:26	✓	m0-92	1
7-10-20	12:29	✓	m0-BE-10	1
7-10-20	10:10	✓	m0-BE-10	1
7-10-20	---	✓	Outfall 001	2
7-10-20	9:06	✓	m0-124 d	2



**Data Transmittal Cover Page**

**LABORATORY OPERATIONS  
 CASE NARRATIVE**

Project Name: Pall Corporation  
 ATS Project Number: G001-002  
 ATS Report Number(s): Org\_SRF\_0731201

ATS Project Number: G001-002  
 Report Date: 8/6/20  
 SRF / SDG Numbers: 0731201

Project Description: This data report contains the results of twenty-two water samples, received by ATS on 7/31/20, 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.

**Case Narrative Summary**

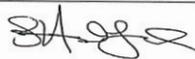
This case narrative applies to the following samples that was received at Ann Arbor Technical Services, Inc. (ATS) on 7/31/20, and associated matrix-specific QA/QC:

Recipient: Ms. Sue Peters Email: Sue\_Peters@Pall.com  
 FAX Number:

No. of Pages (including cover pg.): 32

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

Additional Message:



Date: 8/6/30 Signed:

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Client Sample Identification	Sample Date	Requested Turn Around Time	Analysis	Matrix
<b>Received 7/31/20</b>				
MW-25d	7/24/2020	Rush	1,4-Dioxane	Ground Water
MW-25a	7/24/2020	Rush	1,4-Dioxane	Ground Water
AMW-2	7/24/2020	Rush	1,4-Dioxane	Ground Water
MW-23	7/24/2020	Rush	1,4-Dioxane	Ground Water
MOW-1	7/24/2020	Rush	1,4-Dioxane	Ground Water
PIW-4	7/24/2020	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/28/2020	Rush	1,4-Dioxane	Treated Water
Red Pond	7/27/2020	Rush	1,4-Dioxane	Ground Water
MW-116	7/27/2020	Rush	1,4-Dioxane	Ground Water
MW-115	7/27/2020	Rush	1,4-Dioxane	Ground Water
2819 Dexter Road	7/27/2020	Rush	1,4-Dioxane	Ground Water
MW-KD-1s	7/27/2020	Rush	1,4-Dioxane	Ground Water
MW-KD-1d	7/27/2020	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/27/2020	Rush	1,4-Dioxane	Treated Water
MW-69	7/28/2020	Rush	1,4-Dioxane	Ground Water
MW-134d	7/28/2020	Rush	1,4-Dioxane	Ground Water
MW-134s	7/28/2020	Rush	1,4-Dioxane	Ground Water
MW-94s	7/28/2020	Rush	1,4-Dioxane	Ground Water
MW-134l	7/28/2020	Rush	1,4-Dioxane	Ground Water
Outfall 001	7/28/2020	Rush	1,4-Dioxane	Treated Water
Outfall 001	7/29/2020	Rush	1,4-Dioxane	Treated Water
Outfall 001	7/30/2020	Rush	1,4-Dioxane	Treated Water

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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

Upon receipt, samples were scheduled for the following analyses:

Analysis	Number of Samples
1,4-Dioxane (US EPA 1624) (Standard Turn)	22 + 2 Matrix Spike / 2 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. All samples were prepared and analyzed within the holding times cited in the corresponding analytical methods. The following exceptions were noted concerning sample condition upon receipt:

- None

**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).

**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

**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

**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:

- 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:

- 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:

- MW-25d 7/24/20
- RED POND 7/27/20
- MW-23 7/24/20
- PMW-4 7/24/20
- MW-11 7/27/20
- MW-KD-1s 7/27/20
- MW-94s 7/28/20
- MW-25s 7/24/20
- AMW-2 7/24/20
- MOW-1 7/24/20
- MW-116 7/27/20
- 2819 Dexter Rd. 7/27/20
- MW-KD-1d 7/27/20

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

ATS Project: Pall Corporation #G001-002  
 Report Date: 8/6/20  
 ATS SRF: 731201

Sample Identification: MW-25d

Sample Date: 7/24/20  
 Sample Time: 9:59 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.06	0.01	8/4/20	14:48	JEB

*Mark DeLong*

/ August 6, 2020

Mark T. DeLong (Quality Assurance Coordinator)

*Philip B. Simon*

/ August 6, 2020

Philip B. Simon (Laboratory Director)

**Comments**

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

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rev. 8/6/20

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

ATS Project: Pall Corporation #G001-002  
 Report Date: 8/6/20  
 ATS SRF: 731201

Sample Identification: MW-25s

Sample Date: 7/24/20  
 Sample Time: 10:10 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.38	0.02	8/4/20	17:11	JEB

**Comments**

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

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

ATS Project: Pall Corporation #G001-002  
 Report Date: 8/6/20  
 ATS SRF: 731201

Sample Identification: AMW-2

Sample Date: 7/24/20  
 Sample Time: 10:45 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analized By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.18	0.01	8/5/20	16:34	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: 8/8/20  
 ATS SRF: 731201

Sample Identification: MW-23

Sample Date: 7/24/20  
 Sample Time: 11:15 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.20	0.01	8/4/20	18:39	JEB

**Comments**

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

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**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: 8/8/20  
 ATS SRF: 731201

Sample Identification: MOW-1

Sample Date: 7/24/20  
 Sample Time: 11:30 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 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	8/4/20	19:23	JEB

**Comments**

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

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rev. 8/9/20

**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: 8/8/20  
 ATS SRF: 731201

Sample Identification: PMW-4

Sample Date: 7/24/20  
 Sample Time: 11:48 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.58	0.02	8/5/20	17:18	JEB

**Comments**

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

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rev. 8/6/20

**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: 8/8/20  
 ATS SRF: 731201

Sample Identification: Outfall 001

Sample Date: 7/26/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 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	8/5/20	18:02	JEB

**Comments**

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

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rev. 8/6/20

**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: 8/6/20  
 ATS SRF: 731201

Sample Identification: Red Pond

Sample Date: 7/27/20  
 Sample Time: 8:35 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 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	8/5/20	18:45	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: 8/6/20  
 ATS SRF: 731201

Sample Identification: MW-116

Sample Date: 7/27/20  
 Sample Time: 9:08 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.48	0.01	8/5/20	19:30	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: 8/6/20  
 ATS SRF: 731201

Sample Identification: MW-115

Sample Date: 7/27/20  
 Sample Time: 10:27 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.47	0.01	8/5/20	20:14	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: 8/6/20  
 ATS SRF: 731201

Sample Identification: 2819 Dexter Road

Sample Date: 7/27/20  
 Sample Time: 11:50 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.15	0.01	8/6/20	11:30	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: 8/6/20  
ATS SRF: 731201

Sample Identification: MW-KD-1s

Sample Date: 7/27/20  
Sample Time: 1:09 PM  
Sampled By: Client  
Laboratory Receipt Date: 7/31/20  
Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.13	0.01	8/5/20	21:42	JEB

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

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rev. 8/5/20

**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: 8/6/20  
ATS SRF: 731201

Sample Identification: MW-KD-1d

Sample Date: 7/27/20  
Sample Time: 2:20 PM  
Sampled By: Client  
Laboratory Receipt Date: 7/31/20  
Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.37	0.01	8/5/20	22:28	JEB

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

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rev. 8/5/20

**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: 8/6/20  
ATS SRF: 731201

Sample Identification: Outfall 001

Sample Date: 7/27/20  
Sample Time: na  
Sampled By: Client  
Laboratory Receipt Date: 7/31/20  
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	8/5/20	23:10	JEB

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

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rev. 8/5/20

**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: 8/6/20  
ATS SRF: 731201

Sample Identification: MW-69

Sample Date: 7/28/20  
Sample Time: 9:12 AM  
Sampled By: Client  
Laboratory Receipt Date: 7/31/20  
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	8/5/20	23:54	JEB

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

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rev. 8/5/20

**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: 8/8/20  
 ATS SRF: 731201

Sample Identification: MW-134d

Sample Date: 7/28/20  
 Sample Time: 10:39 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.008	0.001	8/8/20	0:37	JEB

**Comments**

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

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rev. 8/6/20

**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: 8/8/20  
 ATS SRF: 731201

Sample Identification: MW-134s

Sample Date: 7/28/20  
 Sample Time: 1:01 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.009	0.001	8/8/20	1:21	JEB

**Comments**

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

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rev. 8/6/20

**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: 8/8/20  
 ATS SRF: 731201

Sample Identification: MW-94s

Sample Date: 7/28/20  
 Sample Time: 2:23 PM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.65	0.01	8/8/20	2:05	JEB

**Comments**

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

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rev. 8/6/20

**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: 8/8/20  
 ATS SRF: 731201

Sample Identification: MW-134l

Sample Date: 7/28/20  
 Sample Time: 11:51 AM  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 Sample Matrix: Water

Parameter	Method	Units	Result	Reporting Limit	Analysis Date	Analysis Time	Analyzed By
Organic Analysis							
1,4-Dioxane	EPA 1624	mg/L	0.007	0.001	8/8/20	2:05	JEB

**Comments**

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

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rev. 8/6/20

**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: 8/6/20  
 ATS SRF: 731201

Sample Identification: Outfall 001

Sample Date: 7/28/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 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	8/5/20	15:06	JEB

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

X:\G001-002\20\SRF\_073120\ORG\_SRF\_0731201 rev. 8/6/20

**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: 8/6/20  
 ATS SRF: 731201

Sample Identification: Outfall 001

Sample Date: 7/30/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 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	8/5/20	12:41	JEB

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

X:\G001-002\20\SRF\_073120\ORG\_SRF\_0731201 rev. 8/6/20

**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: 8/6/20  
 ATS SRF: 731201

Sample Identification: Outfall 001

Sample Date: 7/28/20  
 Sample Time: na  
 Sampled By: Client  
 Laboratory Receipt Date: 7/31/20  
 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	8/5/20	15:50	JEB

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

X:\G001-002\20\SRF\_073120\ORG\_SRF\_0731201 rev. 8/6/20

**Quality Assurance / Quality Control  
 Data Summary**

QC Batch Number: QCORG0804201 #G001-002  
 Parameter: 1,4-Dioxane (EPA 1624) Report Date: 8/6/20

Results of QA Samples run concurrently with project samples

**REPLICATE ANALYSIS**

Sample	Replicate #1	Replicate #2	Mean	Relative Range (percent)
#G001-002 MWI-25d 7/24/20 Matrix Spike	0.25 mg/L	0.27 mg/L	0.26 mg/L	7.0

**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	84.3
MWI-25d 7/24/20 Matrix Spike	0.05 mg/L	0.20 mg/L	0.25 mg/L	93.8
MWI-25d 7/24/20 Matrix Spike Duplicate	0.06 mg/L	0.20 mg/L	0.27 mg/L	103.3

**BLANK ANALYSIS**

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%)

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