



Vincent Sapienza, P.E.
Acting Commissioner

Pamela Elardo, P.E.
Deputy Commissioner

**Bureau of Wastewater
Treatment**
96-05 Horace Harding
Expressway – 2nd Floor
Corona, NY 11368

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October 27, 2016

Tom Gentile
Bureau of Air Quality Analysis and Research
Division of Air Resources
NYSDEC
625 Broadway
Albany, NY 12233

Margaret Valis
Bureau of Stationary Sources
Division of Air Resources
NYSDEC
625 Broadway
Albany, NY 12233

Re: North River Wastewater Treatment Plant Order on Consent
DEC Case Nos.: R2-20010713-146 and R2-3669-91-05
Formaldehyde Monitoring Report Third Quarter of 2016

Dear Mr. Gentile and Ms. Valis:

The New York City Department of Environmental Protection (“DEP”) is submitting to the New York State Department of Environmental Conservation (“DEC”) the North River Wastewater Treatment Plant (“WWTP”) Quarterly Formaldehyde Monitoring Report for the Third Quarter of 2016 (the “Report”). This Report is submitted pursuant to Section III.C of the above referenced North River WWTP Order on Consent (the “Order”), dated July 31, 2012.

This Report includes the laboratory certification and results of the formaldehyde monitoring performed from July through September of 2016 in accordance with the DEP Formaldehyde Monitoring Plan, approved by DEC on May 26, 2015. DEP started the monitoring on September 25, 2015 and concluded collecting the last sample on September 26, 2016 for a period of one full year, as required by the Order.

If you have any questions or require any additional information please feel free to contact Leslie Lipton, Chief of Division of Pollution Control and Monitoring at (718) 595-4730.

Sincerely,



Pam Elardo, P.E.
Deputy Commissioner

Attachment

Cc: Steven Zahn, Regional Director, NYSDEC Region II
Karen Mintzer, Regional Attorney, NYSDEC Region II
Samuel Lieblich, Air Pollution Control Engineer, NYSDEC Region II
Thomas John, Environmental Engineer, NYSDEC Region II
Robert Bolt, Environmental Engineer, NYSDEC Region II
Pareesh Shah, Environmental Engineer, NYSDEC Region II

North River Wastewater Treatment Plant

Quarterly Formaldehyde Monitoring Report for Third Quarter of 2016

Submitted by:

New York City Department of Environmental Protection

96-05 Horace Harding Expressway, 2nd floor
Corona, New York 11368

Prepared by:

The Louis Berger Group, Inc.

48 Wall Street 16th Floor
New York, NY 10005



Louis Berger

On Behalf of:

New York City Department of Environmental Protection

October 18, 2016

3rd Quarter 2016

Project No. 2001285.06.02

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SECTION 1 INTRODUCTION

Pursuant to Section III.A.(ii) of the 2012 Administrative Order on Consent (Order), R2 20010713 146, between the New York City Department of Environmental Protection (DEP) and the New York State Department of Environmental Conservation (DEC), DEP conducted a dispersion modeling analysis for the North River Wastewater Treatment Plant (WWTP) to evaluate potential offsite impacts of emissions from the WWTP. Based upon the results of that analysis and pursuant to the Order, DEP submitted a Standard Operating Procedure (SOP) to the DEC for review and approval. The SOP was approved by DEC in May 2015.

This Standard Operation Procedure (SOP) document presents SOPs for conducting one year of formaldehyde monitoring every six (6) days at the existing North River H₂S Air Quality Monitoring Network's Station 5 within the Riverbank State Park on the roof of the WWTP.

The sampling started on September 25, 2015 and concluded on September 26, 2016.

This quarterly monitoring report presents laboratory results with respect to formaldehyde monitoring from July 1, 2016 through September 26, 2016.

SECTION 2 LOCATION

The formaldehyde monitoring location is at the existing DEC approved North River WWTP H₂S Air Quality Monitoring Network's Station 5. Ambient air samples are collected for formaldehyde monitoring once every 6 days, for two consecutive 12-hour periods at this location. The samples were analyzed by Eurofins Air Toxics, Inc. laboratory located in Folsom, CA and their accreditation is presented in Appendix D.

SECTION 3 TEST METHODS

EPA Method TO-11A is a method for the determination of formaldehyde in ambient air utilizing a coated-solid adsorbent followed by high performance liquid chromatographic detection. Method TO-11A has the sensitivity needed to reach health-based detection limits (10^{-6} risk level).

SECTION 4 RESULTS

The Formaldehyde concentrations averaged $20.3\mu\text{g}/\text{m}^3$ for the first 12 hours (0600-1800) and $21.4\mu\text{g}/\text{m}^3$ for the second 12 hours (1815-0615) for the quarter. The laboratory results and Chain-of-Custody are compiled in Appendix A.

4.1 MET Tower Data

Hourly wind direction and speed data collected at the DEC approved North River WWTP H₂S Air Quality Monitoring Network's Meteorological Tower for each sampling event is presented in Appendix B.

4.2 Electronic Data

Information about the flow rates and sample volumes are included in Appendix C.

LIST OF APPENDICES

Appendix A: Laboratory Results and Chain-of-Custody

Appendix B: Met Tower Data

Appendix C: Flow Rate and Volume

Appendix D: Laboratory Accreditation

APPENDIX A

Laboratory Results and Chain-of-Custody

7/25/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1607084

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 7/6/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1607084

Work Order Summary

CLIENT:	Mr. Rhine Almonacy The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960	BILL TO:	Accounts Payable The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960
PHONE:	973-407-1000	P.O. #	2001285.06.02
FAX:		PROJECT #	North River WWTP
DATE RECEIVED:	07/06/2016	CONTACT:	Ausha Scott
DATE COMPLETED:	07/25/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-070316	Modified TO-11A
02A	Formaldehyde-002-070316	Modified TO-11A
03A	Formaldehyde-003-070316	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY: 

 Technical Director

DATE: 07/25/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1607084

Three TO-11 Cartridge samples were received on July 06, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-070316 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-070316

Lab ID#: 1607084-01A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	0.050	20

Client Sample ID: Formaldehyde-002-070316

Lab ID#: 1607084-02A

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	0.050	20

Client Sample ID: Formaldehyde-003-070316

Lab ID#: 1607084-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde-001-070316

Lab ID#: 1607084-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725011	Date of Collection:	7/3/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	7/25/16 12:34 PM
		Date of Extraction:	7/15/16

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	0.050	20

Air Sample Volume(L): 713



Air Toxics

Client Sample ID: Formaldehyde-002-070316

Lab ID#: 1607084-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725012	Date of Collection:	7/3/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	7/25/16 01:00 PM
		Date of Extraction:	7/15/16

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	0.050	20

Air Sample Volume(L): 713



Air Toxics

Client Sample ID: Formaldehyde-003-070316

Lab ID#: 1607084-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725010	Date of Collection:	7/3/16
Dil. Factor:	1.00	Date of Analysis:	7/25/16 12:08 PM
		Date of Extraction:	7/15/16

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	0.050	Not Detected

Air Sample Volume(L): 713



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1607084-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725009	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/25/16 11:42 AM
		Date of Extraction:	7/15/16

Compound	Rpt. Limit (ug)	Amount (ug)
Formaldehyde	0.050	Not Detected

Air Sample Volume(L): 713



Air Toxics

Client Sample ID: LCS

Lab ID#: 1607084-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/25/16 08:26 AM
		Date of Extraction:	7/15/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1607084-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/25/16 08:52 AM
		Date of Extraction:	7/15/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

**180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630**

(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Rhine Almonroy
 Collected by: (Print and Sign) Chen Liang
 Company Louis Berger Email ralmonroy@louisberger.com
 Address 181 Wall St 16th Fl City New York State NY zip 10005
 Phone 973-418-1267 Fax _____

Project Info:		Turn Around Time:		Circle Reporting Units:	
PO # _____		<input checked="" type="checkbox"/> Normal		ppbv ppmv	
Project # _____		<input type="checkbox"/> Rush		<input checked="" type="radio"/> ug/m ³ mg/m ³	
Project Name <u>North River WWTP</u>		specify _____			

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
QA	Formaldehyde - 001 - 070316	Channel 1	7/3/16	06:00	18:00	12h	713.0	Formaldehyde TO-11A
QA	Formaldehyde - 002 - 070316	Channel 2	7/3/16	18:15	06:15	12h	712.8	
QA	Formaldehyde - 003 - 070316	Blank	7/3/16	-	-	-	-	

Relinquished by: (signature) Chen Liang Date/Time 7/5/16 13:00
 Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) Adde T. GATE Date/Time 7/6/16 10:50
 Received by: (signature) _____ Date/Time _____

Relinquished by: (signature) _____ Date/Time _____
 Received by: (signature) _____ Date/Time _____

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
<u>UPS</u>		<u>21.6°C</u>	<u>good V.V. SDR</u>	<u>None</u>	<u>1607984</u>

8/11/2016
Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP
Project #:
Workorder #: 1607174

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 7/12/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1607174

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

P.O. # 2001285.06.02

FAX:

PROJECT # North River WWTP

DATE RECEIVED: 07/12/2016

CONTACT: Ausha Scott

DATE COMPLETED: 08/11/2016

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde001-070916	Modified TO-11A
02A	Formaldehyde002-070916	Modified TO-11A
03A	Formaldehyde003-070916	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY: _____



Technical Director

DATE: 08/11/16 _____

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1607174

Three TO-11 Cartridge samples were received on July 12, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde003-070916 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde001-070916

Lab ID#: 1607174-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	18	26

Client Sample ID: Formaldehyde002-070916

Lab ID#: 1607174-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	17	24

Client Sample ID: Formaldehyde003-070916

Lab ID#: 1607174-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde001-070916

Lab ID#: 1607174-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810008	Date of Collection:	7/9/16 8:00:00 AM
Dil. Factor:	1.00	Date of Analysis:	8/10/16 05:08 PM
		Date of Extraction:	7/15/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	18	26

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde002-070916

Lab ID#: 1607174-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810009	Date of Collection:	7/9/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	8/10/16 05:34 PM
		Date of Extraction:	7/15/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	17	24

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde003-070916

Lab ID#: 1607174-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810006	Date of Collection:	7/9/16
Dil. Factor:	1.00	Date of Analysis:	8/10/16 04:16 PM
		Date of Extraction:	7/15/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1607174-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725009	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/25/16 11:42 AM
		Date of Extraction:	7/15/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1607174-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/25/16 08:26 AM
		Date of Extraction:	7/15/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1607174-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0725004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/25/16 08:52 AM
		Date of Extraction:	7/15/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
 FOLSOM, CA 95630
 (916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Khine Amonlasy
 Collected by: (Print and Sign) Khine Amonlasy
 Company Leas BERGER Email _____
 Address W. 1st St 16th City Waco State Tx Zip 76798
 Phone 214-612-7511 Fax _____

Project Info:		Turn Around Time:	Circle Reporting Units:
P.O. # _____	Project # _____	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush	ppbv ppmv <input checked="" type="checkbox"/> ug/m ³ mg/m ³
Project Name <u>North-South Blvd</u>		specify _____	

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01a	Formaldehyde 001-070916		7/9/16	0600	1800	7:00	73.0	To-14 Formaldehyde
02a	Formaldehyde 002-070916			1815	2015	7:00	71.85	
03a	Formaldehyde 003-070916			N/A	N/A	N/A	N/A	
Relinquished by: (signature) _____		Date/Time	Received by: (signature) _____	Date/Time	Pump Calibration Information			
Relinquished by: (signature) _____		Date/Time	Received by: (signature) _____	Date/Time	Pre-test Flow Rate: _____			
Relinquished by: (signature) _____		Date/Time	Received by: (signature) _____	Date/Time	Post-test Flow Rate: _____			
Relinquished by: (signature) _____		Date/Time	Received by: (signature) _____	Date/Time	Average Flow Rate: _____			
Relinquished by: (signature) _____		Date/Time	Received by: (signature) _____	Date/Time	Notes: _____			
Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #		
	UPS		13°C	SDR	Yes No <u>None</u>	1607174		

8/12/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #: 2001285

Workorder #: 1607306

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 7/19/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1607306

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

P.O. #

FAX:

PROJECT # 2001285 North River WWTP

DATE RECEIVED: 07/19/2016

CONTACT: Ausha Scott

DATE COMPLETED: 08/12/2016

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde 001-071516	Modified TO-11A
02A	Formaldehyde 002-071516	Modified TO-11A
03A	Formaldehyde 003-071516	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY: _____



Technical Director

DATE: 08/12/16 _____

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1607306

Three TO-11 Cartridge samples were received on July 19, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde 003-071516 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde 001-071516

Lab ID#: 1607306-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	20

Client Sample ID: Formaldehyde 002-071516

Lab ID#: 1607306-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	22

Client Sample ID: Formaldehyde 003-071516

Lab ID#: 1607306-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde 001-071516

Lab ID#: 1607306-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810010	Date of Collection:	7/15/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	8/10/16 06:00 PM
		Date of Extraction:	7/22/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	20

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde 002-071516

Lab ID#: 1607306-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810011	Date of Collection:	7/15/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	8/10/16 06:26 PM
		Date of Extraction:	7/22/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	22

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde 003-071516

Lab ID#: 1607306-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812005	Date of Collection:	7/15/16
Dil. Factor:	1.00	Date of Analysis:	8/12/16 09:24 AM
		Date of Extraction:	7/22/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1607306-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810013	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/16 07:18 PM
		Date of Extraction:	7/22/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1607306-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/10/16 02:59 PM
		Date of Extraction: 7/22/16

Compound	%Recovery	Method Limits
Formaldehyde	101	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1607306-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/16 03:25 PM
		Date of Extraction:	7/22/16

Compound	%Recovery	Method Limits
Formaldehyde	100	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

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FOLSOM, CA 95630
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Rhina Almonacy
 Collected by: (Print and Sign) Rhina Almonacy
 Company Louis Berger Email ES
 Address 48 West 4th N City Newark NJ 07105
 Phone 912-612-7951 Fax _____

Project Info:		Turn Around Time:	Circle Reporting Units:
P.O. # _____	Project # _____	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush specify _____	ppbv ppmv <input checked="" type="checkbox"/> ug/m ³ mg/m ³
Project Name <u>North Ave RWTR</u>			

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01a	Farms Highway 001-071516		07/15/16	0600	1800	720	713.1	Tox 11A Ground Level
02a	Farms Highway 002-071516		07/15/16	1805	0815	720	712.7	
03a	Farms Highway 003-071516		07/15/16	0615	0715	720	N/A	

Relinquished by: (signature) <u>[Signature]</u>	Date/Time <u>7/18/16 1600</u>	Received by: (signature) <u>[Signature]</u>	Date/Time <u>1230 7/19/16</u>
Relinquished by: (signature) _____	Date/Time _____	Received by: (signature) _____	Date/Time _____
Relinquished by: (signature) _____	Date/Time _____	Received by: (signature) _____	Date/Time _____

Pump Calibration Information
 Pre-test Flow Rate: _____
 Post-test Flow Rate: _____
 Average Flow Rate: _____
 Notes: _____

Lab Use Only	Shipper Name <u>URS</u>	Air Bill # _____	Temp (°C) <u>21°C</u>	Condition <u>Good SDR</u>	Custody Seals Intact? <u>Yes</u> <input type="checkbox"/> <u>No</u> <input checked="" type="checkbox"/> <u>None</u>	Work Order # <u>1607306</u>

8/12/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name:
Project #:
Workorder #: 1607400

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 7/25/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1607400

Work Order Summary

CLIENT:	Mr. Rhine Almonacy The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960	BILL TO:	Accounts Payable The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960
PHONE:	973-407-1000	P.O. #	2001285.06.02
FAX:		PROJECT #	
DATE RECEIVED:	07/25/2016	CONTACT:	Ausha Scott
DATE COMPLETED:	08/12/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-072116	Modified TO-11A
02A	Formaldehyde-002-072116	Modified TO-11A
03A	Formaldehyde-003-072116	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY: 

 Technical Director

DATE: 08/12/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1607400

Three TO-11 Cartridge samples were received on July 25, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD \leq 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-072116 and the Laboratory Blank.

Sample Formaldehyde-003-072116 has a reportable level of target compound present.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-072116

Lab ID#: 1607400-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	20

Client Sample ID: Formaldehyde-002-072116

Lab ID#: 1607400-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	18	25

Client Sample ID: Formaldehyde-003-072116

Lab ID#: 1607400-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	0.054	0.076



Air Toxics

Client Sample ID: Formaldehyde-001-072116

Lab ID#: 1607400-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812008	Date of Collection:	7/21/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	8/12/16 10:42 AM
		Date of Extraction:	8/4/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	20

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-072116

Lab ID#: 1607400-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812009	Date of Collection:	7/21/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	8/12/16 11:08 AM
		Date of Extraction:	8/4/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	18	25

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-072116

Lab ID#: 1607400-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/16 09:50 AM
		Date of Extraction:	8/4/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	0.054	0.076

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1607400-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/16 08:58 AM
		Date of Extraction:	8/4/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1607400-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810023	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/16 11:37 PM
		Date of Extraction:	8/4/16

Compound	%Recovery	Method Limits
Formaldehyde	94	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1607400-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810024	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/11/16 12:03 AM
		Date of Extraction:	8/4/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

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FOLSOM, CA 95630

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Page 1 of 1

Project Manager Rhina Almonsey

Collected by: (Print and Sign) Cheri Leary

Company Louis Berger

Email ralmonsey@airtoxics.com

Address 48 Wood St. (1st fl) New York State NY Zip 10015

Phone 973-418-1267 Fax _____

Project Info:

P.O. # _____

Project # _____

Project Name _____

Turn Around Time:

Normal

Push

specify

Circle Reporting Units:

ppbv ppmv

ug/m³ mg/m³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01A	Formaldehyde - 001 - 072116	Channel 1	07/21/16	06:00	18:00	12h	713.1	Formaldehyde - To-11A
02A	Formaldehyde - 002 - 072116	Channel 2	7/21/16	18:15	06:15	12h	712.8	
03A	Formaldehyde - 003 - 072116	Blank	-	-	-	-	-	

Pump Calibration Information

Post-test Flow Rate:

Average Flow Rate:

Notes:

Relinquished by: (signature) _____ Date/Time _____

Relinquished by: (signature) _____ Date/Time _____

Relinquished by: (signature) _____ Date/Time _____

Relinquished by: (signature) _____ Date/Time _____

Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

Yes No None

1607400

8/12/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name:
Project #:
Workorder #: 1607508

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 7/29/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1607508

Work Order Summary

CLIENT:	Mr. Rhine Almonacy The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960	BILL TO:	Accounts Payable The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960
PHONE:	973-407-1000	P.O. #	2001285.06.02
FAX:		PROJECT #	
DATE RECEIVED:	07/29/2016	CONTACT:	Ausha Scott
DATE COMPLETED:	08/12/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-072716	Modified TO-11A
02A	Formaldehyde-002-072716	Modified TO-11A
03A	Formaldehyde-003-072716	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY: 

 Technical Director

DATE: 08/12/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1607508

Three TO-11 Cartridge samples were received on July 29, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-072716 and the Laboratory Blank.

Sample Formaldehyde-003-072716 has a reportable level of target compound present.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates

as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-072716

Lab ID#: 1607508-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	13	18

Client Sample ID: Formaldehyde-002-072716

Lab ID#: 1607508-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	22

Client Sample ID: Formaldehyde-003-072716

Lab ID#: 1607508-03A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	0.054	0.076



Air Toxics

Client Sample ID: Formaldehyde-001-072716

Lab ID#: 1607508-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812010	Date of Collection:	7/27/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	8/12/16 11:34 AM
		Date of Extraction:	8/4/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	13	18

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-072716

Lab ID#: 1607508-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812011	Date of Collection:	7/27/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	8/12/16 12:00 PM
		Date of Extraction:	8/4/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	22

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-072716

Lab ID#: 1607508-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812007	Date of Collection:	7/27/16
Dil. Factor:	1.00	Date of Analysis:	8/12/16 10:16 AM
		Date of Extraction:	8/4/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	0.054	0.076

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1607508-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0812004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/16 08:58 AM
		Date of Extraction:	8/4/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1607508-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810023	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/16 11:37 PM
		Date of Extraction:	8/4/16

Compound	%Recovery	Method Limits
Formaldehyde	94	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1607508-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0810024	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/11/16 12:03 AM
		Date of Extraction:	8/4/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
 Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

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Page 1 of 1

Project Manager Rhine Almonacy
 Collected by: (Print and Sign) Cherilyn
 Company Louis Berger Email ralmonacy@louisberger.com
 Address 48 Wall St. 14th Floor New York State NY zip 10005
 Phone 973-418-1267 Fax _____

Project Info:		Turn Around Time:		Circle Reporting Units:	
P.O. # _____	Project # _____	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	ppbv	ppmv
Project Name _____		specify _____		ug/m ³	mg/m ³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01A	Formaldehyde-001-072716	channel 1	7/27/16	6:00	18:00	12h	713.1	Formaldehyde TO-11A
02A	Formaldehyde-002-072716	channel 2	7/27/16	18:15	6:15	12h	712.8	↓
03A	Formaldehyde-003-072716	Blank	7/27/16	-	-	-	-	-

Relinquished by: (signature) <u>Cherilyn</u>	Date/Time <u>7/27/16 @ 12:05</u>	Received by: (signature) <u>Cherilyn</u>	Date/Time <u>7/29/16</u>	Pump Calibration Information
Relinquished by: (signature) _____	Date/Time _____	Received by: (signature) _____	Date/Time <u>10/15</u>	
Relinquished by: (signature) _____	Date/Time _____	Received by: (signature) _____	Date/Time _____	Pre-test Flow Rate: _____
Average Flow Rate: _____				Post-test Flow Rate: _____
Notes: _____				

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>UPS</u>		<u>23.2°C</u>	<u>SDR</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <u>None</u>	<u>1607508</u>

8/18/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1608101

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 8/5/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1608101

Work Order Summary

CLIENT:	Mr. Rhine Almonacy The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960	BILL TO:	Accounts Payable The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960
PHONE:	973-407-1000	P.O. #	2001285.06.02
FAX:		PROJECT #	North River WWTP
DATE RECEIVED:	08/05/2016	CONTACT:	Ausha Scott
DATE COMPLETED:	08/18/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-080216	Modified TO-11A
02A	Formaldehyde-002-080216	Modified TO-11A
03A	Formaldehyde-003-080216	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY: 

 Technical Director

DATE: 08/18/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1608101

Three TO-11 Cartridge samples were received on August 05, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-080216 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-080216

Lab ID#: 1608101-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	15	21

Client Sample ID: Formaldehyde-002-080216

Lab ID#: 1608101-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	22

Client Sample ID: Formaldehyde-003-080216

Lab ID#: 1608101-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde-001-080216

Lab ID#: 1608101-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816009	Date of Collection:	8/2/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	8/16/16 12:54 PM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	15	21

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-080216

Lab ID#: 1608101-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816010	Date of Collection:	8/2/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	8/16/16 01:20 PM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	22

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-080216

Lab ID#: 1608101-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816006	Date of Collection:	8/2/16
Dil. Factor:	1.00	Date of Analysis:	8/16/16 11:36 AM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1608101-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/16/16 11:10 AM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1608101-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/16/16 10:18 AM
		Date of Extraction:	8/16/16

Compound	%Recovery	Method Limits
Formaldehyde	99	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1608101-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/16/16 10:44 AM
		Date of Extraction:	8/16/16

Compound	%Recovery	Method Limits
Formaldehyde	96	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
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Page 1 of 1

Project Manager: Phu Almonay
 Collected by: (Print and Sign) Cher Henry
 Company: Louis Berger Email: ralmonay@twistergen.com
 Address: 48 Wall St, 16th Fl City: New York State: NY Zip: 10005
 Phone: 973-418-1267 Fax: _____

Project Info: P.O. # _____
 Project # _____
 Project Name: North River WWTP
 Turn Around Time: Normal Rush
 Circle Reporting Units: ug/m³ ppbv ppmv mg/m³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01A	Formaldehyde - 001 - 080246	Channel 1	8/21/16	06:00	18:00	12h	713.1	Formaldehyde To-11A
02A	Formaldehyde - 002 - 080246	Channel 2	8/21/16	18:15	06:15	12h	712.8	↓
03A	Formaldehyde - 003 - 080246	Blank	8/21/16	—	—	—	—	—
Relinquished by: (signature) <u>Cher Henry</u> Date/Time <u>8/31/16 12:00</u> Received by: (signature) <u>[Signature]</u> Date/Time <u>15:47 10/25 3/5/17</u> Pump Calibration Information Pre-test Flow Rate: _____ Post-test Flow Rate: _____ Average Flow Rate: _____ Notes: _____								
Relinquished by: (signature)		Date/Time	Received by: (signature)		Date/Time	Notes:		
Relinquished by: (signature)		Date/Time	Received by: (signature)		Date/Time	Notes:		
Lab Use Only	Shipper Name <u>UPS</u>	Air Bill #	Temp (°C) <u>17.4</u>	Condition <u>5 DR</u>	Custody Seals Intact? <u>Yes</u> <u>No</u> <u>None</u>	Work Order # <u>1608102</u>		

8/20/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1608147

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 8/10/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1608147

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

P.O. # 2001285.06.02

FAX:

PROJECT # North River WWTP

DATE RECEIVED: 08/10/2016

CONTACT: Ausha Scott

DATE COMPLETED: 08/20/2016

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-080816	Modified TO-11A
02A	Formaldehyde-002-080816	Modified TO-11A
03A	Formaldehyde-003-080816	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY:



Technical Director

DATE: 08/20/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1608147

Three TO-11 Cartridge samples were received on August 10, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-080816 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-080816

Lab ID#: 1608147-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	23

Client Sample ID: Formaldehyde-002-080816

Lab ID#: 1608147-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	18	26

Client Sample ID: Formaldehyde-003-080816

Lab ID#: 1608147-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde-001-080816

Lab ID#: 1608147-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816011	Date of Collection:	8/8/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	8/16/16 01:46 PM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	23

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-080816

Lab ID#: 1608147-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816012	Date of Collection:	8/8/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	8/16/16 02:12 PM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	18	26

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-080816

Lab ID#: 1608147-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816007	Date of Collection:	8/8/16
Dil. Factor:	1.00	Date of Analysis:	8/16/16 12:02 PM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1608147-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/16/16 11:10 AM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1608147-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/16/16 10:18 AM
		Date of Extraction: 8/16/16

Compound	%Recovery	Method Limits
Formaldehyde	99	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1608147-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/16/16 10:44 AM
		Date of Extraction:	8/16/16

Compound	%Recovery	Method Limits
Formaldehyde	96	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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FOLSOM, CA 95630
(916) 985-1000 FAX (916) 985-1020**

Page 1 of 1

Project Manager Philo Almonsey
 Collected by: (Print and Sign) Chen Liang
 Company Louis Berger Email ralmonsey@louisberger.com
 Address 48 Wall St 14th fl city New York state NY zip 10005
 Phone 212-418-1267 Fax _____

Project Info:		Turn Around Time:		Circle Reporting Units:	
PO # _____	Project # _____	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	ppbv	ppmv
Project Name <u>Abeta River WWTP</u>		specify _____		<u>ug/m3</u>	mg/m3

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01A	Fornaldelhyde - 001 - 080816	channel 1	8/8/16	06:00	18:00	12h	713.0	Fornaldelhyde - T0-11A
02A	Fornaldelhyde - 002 - 080816	channel 2		18:15	06:15	12h	712.8	
03A	Fornaldelhyde - 003 - 080816	Blank						

Relinquished by: (signature) <u>[Signature]</u>	Date/Time <u>8/9/16 11:00</u>	Received by: (signature) <u>[Signature]</u>	Date/Time <u>8/19/16 10:30</u>	Pump Calibration Information	
Relinquished by: (signature) _____	Date/Time _____	Received by: (signature) _____	Date/Time _____	Pre-test Flow Rate:	Post-test Flow Rate:
Relinquished by: (signature) _____	Date/Time _____	Received by: (signature) _____	Date/Time _____	Average Flow Rate:	Notes:

Lab Use Only	Shipper Name <u>UPS</u>	Air Bill # _____	Temp (°C) <u>22.6</u>	Condition <u>SPR</u>	Custody Seals Intact? <u>Yes</u> <u>No</u> <u>None</u>	Work Order # <u>1608147</u>
--------------	-------------------------	------------------	-----------------------	----------------------	--	-----------------------------

8/29/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1608243

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 8/16/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1608243

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

P.O. # 2001285.06.02

FAX:

PROJECT # North River WWTP

DATE RECEIVED: 08/16/2016

CONTACT: Ausha Scott

DATE COMPLETED: 08/29/2016

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-081416	Modified TO-11A
02A	Formaldehyde-002-081416	Modified TO-11A
03A	Formaldehyde-003-081416	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY:



Technical Director

DATE: 08/29/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1608243

Three TO-11 Cartridge samples were received on August 16, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-081416 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-081416

Lab ID#: 1608243-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	20

Client Sample ID: Formaldehyde-002-081416

Lab ID#: 1608243-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	13	18

Client Sample ID: Formaldehyde-003-081416

Lab ID#: 1608243-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde-001-081416

Lab ID#: 1608243-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816018	Date of Collection:	8/14/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	8/16/16 04:47 PM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	20

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-081416

Lab ID#: 1608243-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816019	Date of Collection:	8/14/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	8/16/16 05:13 PM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	13	18

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-081416

Lab ID#: 1608243-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816017	Date of Collection:	8/14/16
Dil. Factor:	1.00	Date of Analysis:	8/16/16 04:21 PM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1608243-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/16/16 11:10 AM
		Date of Extraction:	8/16/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1608243-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/16/16 10:18 AM
		Date of Extraction:	8/16/16

Compound	%Recovery	Method Limits
Formaldehyde	99	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1608243-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0816004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/16/16 10:44 AM
		Date of Extraction:	8/16/16

Compound	%Recovery	Method Limits
Formaldehyde	96	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Mike Almonsey
Collected by: (Print and Sign) Chen Liang
Company Louis Berger Email ralmonacyelouisberger.com
Address 48 Wald St, 11th Fl city New York State NY Zip 10005
Phone 973-418-1267 Fax

Project Info:
P.O. #
Project #
Project Name North River RWTP

Turn Around Time:
 Normal
 Rush

Circle Reporting Units:
ppbv ppmv
ug/m³ mg/m³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01A	Formaldehyde - 001 - 08/14/16	Channel 1	8/14/16	06:00	18:00	12h	713.1	Formaldehyde To-11A
02A	Formaldehyde - 002 - 08/14/16	Channel 2	8/14/16	18:15	06:15	12h	712.8	
03A	Formaldehyde - 003 - 08/14/16	Blank	8/14/16	-	-	-	~1A	

Relinquished by: (signature) <u>[Signature]</u>	Date/Time <u>8/15/16 16:30</u>	Received by: (signature) <u>[Signature]</u>	Date/Time <u>8/16/16 10:30</u>
Relinquished by: (signature) <u>[Signature]</u>	Date/Time <u>8/15/16 16:30</u>	Received by: (signature) <u>[Signature]</u>	Date/Time <u>8/16/16 10:30</u>
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Lab Use Only	Shipper Name <u>VPS</u>	Air Bill #	Temp (°C) <u>23.40C</u>	Condition <u>good</u>	Custody Seals Intact? <u>None</u>	Work Order # <u>16082451416</u>

Notes:
Average Flow Rate:
Post-test Flow Rate:
Pump Calibration Information
Pre-test Flow Rate:
Notes:
23.40C
VPS 8/16/16

9/9/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1608427

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 8/30/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1608427

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

P.O. # 2001285.06.02

FAX:

PROJECT # North River WWTP

DATE RECEIVED: 08/30/2016

CONTACT: Ausha Scott

DATE COMPLETED: 09/09/2016

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde 001-082516	Modified TO-11A
02A	Formaldehyde 002-082516	Modified TO-11A
03A	Formaldehyde 003-082516	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY:



Technical Director

DATE: 09/09/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1608427

Three TO-11 Cartridge samples were received on August 30, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde 003-082516 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde 001-082516

Lab ID#: 1608427-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	15	21

Client Sample ID: Formaldehyde 002-082516

Lab ID#: 1608427-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	22

Client Sample ID: Formaldehyde 003-082516

Lab ID#: 1608427-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde 001-082516

Lab ID#: 1608427-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909008	Date of Collection:	8/25/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	9/9/16 10:51 AM
		Date of Extraction:	9/2/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	15	21

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde 002-082516

Lab ID#: 1608427-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909009	Date of Collection:	8/25/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	9/9/16 11:17 AM
		Date of Extraction:	9/2/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	22

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde 003-082516

Lab ID#: 1608427-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909007	Date of Collection:	8/25/16
Dil. Factor:	1.00	Date of Analysis:	9/9/16 10:25 AM
		Date of Extraction:	9/2/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1608427-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 09:59 AM
		Date of Extraction:	9/2/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1608427-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 09:07 AM
		Date of Extraction:	9/2/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1608427-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 09:33 AM
		Date of Extraction:	9/2/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
 Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, state, federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

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 FOLSOM, CA 95630
 (916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Rhine Amos
 Collected by: (Print and Sign) Blair Amos
 Company Louis Berger Email _____
 Address 486411 St. 18th Pl City New York State NY Zip 10005
 Phone 212-612-7551 Fax 212-363-4341

Project Info:		Turn Around Time:		Circle Reporting Units:	
PO. # _____	Project # _____	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	ppbv	ppmv
Project Name <u>Alaska Superior</u>		specify _____		ug/m ³	mg/m ³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested																																																		
01a	Formaldehyde 001-082516		8/25/16	0600	0800	720	713.1	70114-Formaldehyde																																																		
02a	Formaldehyde 002-082516		8/25/16	0815	0915	220	712.8																																																			
03a	Formaldehyde 003-082516																																																									
<table border="1"> <tr> <td colspan="2">Relinquished by: (signature) _____</td> <td colspan="2">Date/Time <u>8/25/16 1530</u></td> <td colspan="2">Received by: (signature) _____</td> <td colspan="2">Date/Time <u>8/30/16 0930</u></td> <td colspan="2">Pump Calibration Information</td> </tr> <tr> <td colspan="2">Relinquished by: (signature) _____</td> <td colspan="2">Date/Time _____</td> <td colspan="2">Received by: (signature) _____</td> <td colspan="2">Date/Time _____</td> <td colspan="2">Pre-test Flow Rate: _____</td> </tr> <tr> <td colspan="2">Relinquished by: (signature) _____</td> <td colspan="2">Date/Time _____</td> <td colspan="2">Received by: (signature) _____</td> <td colspan="2">Date/Time _____</td> <td colspan="2">Post-test Flow Rate: _____</td> </tr> <tr> <td colspan="2">Relinquished by: (signature) _____</td> <td colspan="2">Date/Time _____</td> <td colspan="2">Received by: (signature) _____</td> <td colspan="2">Date/Time _____</td> <td colspan="2">Average Flow Rate: _____</td> </tr> <tr> <td colspan="2">Relinquished by: (signature) _____</td> <td colspan="2">Date/Time _____</td> <td colspan="2">Received by: (signature) _____</td> <td colspan="2">Date/Time _____</td> <td colspan="2">Notes: _____</td> </tr> </table>									Relinquished by: (signature) _____		Date/Time <u>8/25/16 1530</u>		Received by: (signature) _____		Date/Time <u>8/30/16 0930</u>		Pump Calibration Information		Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Pre-test Flow Rate: _____		Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Post-test Flow Rate: _____		Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Average Flow Rate: _____		Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Notes: _____	
Relinquished by: (signature) _____		Date/Time <u>8/25/16 1530</u>		Received by: (signature) _____		Date/Time <u>8/30/16 0930</u>		Pump Calibration Information																																																		
Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Pre-test Flow Rate: _____																																																		
Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Post-test Flow Rate: _____																																																		
Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Average Flow Rate: _____																																																		
Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Notes: _____																																																		
Lab Use Only		Shipper Name <u>UPS</u>		Air Bill # _____		Temp (°C) <u>21°C</u>		Condition <u>SDR</u>																																																		
		Custody Seals Intact? <u>Yes</u> <u>No</u> <u>None</u>		Work Order # <u>1608427</u>																																																						

9/9/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1608856

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 8/24/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1608856

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

P.O. # 2001285.06.02

FAX:

PROJECT # North River WWTP

DATE RECEIVED: 08/24/2016

CONTACT: Ausha Scott

DATE COMPLETED: 09/09/2016

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-082016	Modified TO-11A
02A	Formaldehyde-002-082016	Modified TO-11A
03A	Formaldehyde-003-082016	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY:



Technical Director

DATE: 09/09/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1608856

Three TO-11 Cartridge samples were received on August 24, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-082016 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-082016

Lab ID#: 1608856-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	13	18

Client Sample ID: Formaldehyde-002-082016

Lab ID#: 1608856-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	19

Client Sample ID: Formaldehyde-003-082016

Lab ID#: 1608856-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde-001-082016

Lab ID#: 1608856-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909013	Date of Collection:	8/20/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	9/9/16 01:01 PM
		Date of Extraction:	9/2/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	13	18

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-082016

Lab ID#: 1608856-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909014	Date of Collection:	8/20/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	9/9/16 01:27 PM
		Date of Extraction:	9/2/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	19

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-082016

Lab ID#: 1608856-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909012	Date of Collection:	8/20/16
Dil. Factor:	1.00	Date of Analysis:	9/9/16 12:35 PM
		Date of Extraction:	9/2/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1608856-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 09:59 AM
		Date of Extraction:	9/2/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1608856-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 09:07 AM
		Date of Extraction:	9/2/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1608856-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0909005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/9/16 09:33 AM
		Date of Extraction:	9/2/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
 Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

**180 BLUE RAVINE ROAD, SUITE B
 FOLSOM, CA 95630
 (916) 985-1000 FAX (916) 985-1020**

Project Manager Rhona Almonroy
 Collected by: (Print and Sign) Chen Liang
 Company Louis Berger Email ralmonroy@louisberger.com
 Address 48 W 1st St, Apt H City New York State NY Zip 10005
 Phone 973-418-1267 Fax _____

Project Info:		Turn Around Time:	Circle Reporting Units:
PO. # _____	Project # _____	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush	ppbv ppmv <input checked="" type="radio"/> ug/m ³ <input type="radio"/> mg/m ³
Project Name <u>North River WWTP</u>		specify _____	

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01a	Formaldehyde-001-082016	Channel 1	8/20/16	06:00	18:00	12h	713.1	Formaldehyde-To-11A
02a	Formaldehyde-002-082016	Channel 2	8/20/16	18:15	06:15	12h	712.8	↓
03a	Formaldehyde-003-082016	Blank	8/20/16	-	-	-	-	

Relinquished by: (signature) Chen Liang Date/Time 13:00 8/23/16
 Relinquished by: (signature) _____ Date/Time _____
 Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) Liang Date/Time 12:15 PM 8/24/16
 Received by: (signature) _____ Date/Time _____
 Received by: (signature) _____ Date/Time _____

Pump Calibration Information
 Pre-test Flow Rate: _____
 Post-test Flow Rate: _____
 Average Flow Rate: _____
 Notes: _____

Lab Use Only	Shipper Name <u>UPS</u>	Air Bill # _____	Temp (°C) <u>21.4°C</u>	Condition <u>Good</u>	Custody Seals Intact? <u>Yes</u> <input checked="" type="radio"/> <u>No</u> <input type="radio"/> <u>None</u> <input type="radio"/>	Work Order # <u>588091</u>
				<u>SDR</u>		<u>160885C</u>

9/17/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1609038

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 9/6/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1609038

Work Order Summary

CLIENT:	Mr. Rhine Almonacy The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960	BILL TO:	Accounts Payable The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960
PHONE:	973-407-1000	P.O. #	2001285.06.02
FAX:		PROJECT #	North River WWTP
DATE RECEIVED:	09/06/2016	CONTACT:	Ausha Scott
DATE COMPLETED:	09/17/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-090116	Modified TO-11A
02A	Formaldehyde-002-090116	Modified TO-11A
03A	Formaldehyde-003-0P0116	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY: 

 Technical Director

DATE: 09/17/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1609038

Three TO-11 Cartridge samples were received on September 06, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

The Chain of Custody (COC) information for samples Formaldehyde-001-090116, Formaldehyde-002-090116 and Formaldehyde-003-0P0116 did not match the entries on the sample tags with regard to sample identification. Therefore the information on the COC was used to process and report the samples.

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-0P0116 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-090116

Lab ID#: 1609038-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	19

Client Sample ID: Formaldehyde-002-090116

Lab ID#: 1609038-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	19

Client Sample ID: Formaldehyde-003-0P0116

Lab ID#: 1609038-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde-001-090116

Lab ID#: 1609038-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0912007	Date of Collection:	9/1/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	9/12/16 04:28 PM
		Date of Extraction:	9/9/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	19

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-090116

Lab ID#: 1609038-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0912008	Date of Collection:	9/1/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	9/12/16 04:54 PM
		Date of Extraction:	9/9/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	19

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-0P0116

Lab ID#: 1609038-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0912006	Date of Collection:	9/1/16
Dil. Factor:	1.00	Date of Analysis:	9/12/16 04:02 PM
		Date of Extraction:	9/9/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1609038-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0912005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/12/16 03:36 PM
		Date of Extraction:	9/9/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1609038-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0912003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/12/16 02:44 PM
		Date of Extraction: 9/9/16

Compound	%Recovery	Method Limits
Formaldehyde	96	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1609038-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0912004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/12/16 03:10 PM
		Date of Extraction:	9/9/16

Compound	%Recovery	Method Limits
Formaldehyde	94	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
 Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 457-4922.

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 FOLSOM, CA 95630
 (916) 985-1000 FAX (916) 985-1020**

Page 1 of 1

Project Manager: Rhke Almonsey
 Collected by: (Print and Sign) Chen Liang
 Company: Louis Berger Email: ralmonsey@louisberger.com
 Address: 48 Wall St, 14th Fl City: New York State: NY Zip: 10005
 Phone: 973-418-1267 Fax: _____

Project Info:		Turn Around Time:		Circle Reporting Units:	
P.O. # _____	Project # _____	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	ppbv	ppmv
Project Name: <u>North River WWTTP</u>		specify _____		<u>ug/m³</u>	mg/m ³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01a	Formaldehyde - 001-090116	channel 1	9/1/16	06:00	18:00	12h	713.1	Formaldehyde - T-11A
02a	Formaldehyde - 002-090116	channel 2	9/1/16	18:15	06:15	12h	712.8	
03a	Formaldehyde - 003-090116	Blank	9/1/16	-	-	-	-	

Relinquished by: (signature) Chen Liang Date/Time 9/2/16 @ 11:30
 Received by: (signature) Walter Date/Time 9/16/16 10:35

Relinquished by: (signature) _____ Date/Time _____
 Received by: (signature) _____ Date/Time _____

Pump Calibration Information
 Pre-test Flow Rate: _____
 Post-test Flow Rate: _____
 Average Flow Rate: _____
 Notes: _____

Lab Use Only	Shipper Name <u>UPS</u>	Air Bill #	Temp (°C) <u>21.80C</u>	Condition <u>SD2</u>	Custody Seals Intact? Yes No <u>None</u>	Work Order # <u>3216091</u>
						<u>1009038</u>

9/23/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1609260

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 9/12/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1609260

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

P.O. # 2001285.06.02

FAX:

PROJECT # North River WWTP

DATE RECEIVED: 09/12/2016

CONTACT: Ausha Scott

DATE COMPLETED: 09/23/2016

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-0P0716	Modified TO-11A
02A	Formaldehyde-002-090716	Modified TO-11A
03A	Formaldehyde-003-0P0716	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY: _____



Technical Director

DATE: 09/23/16 _____

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1609260

Three TO-11 Cartridge samples were received on September 12, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

The Chain of Custody (COC) information for samples Formaldehyde-002-090716 and Formaldehyde-003-0P0716 did not match the entries on the sample tags with regard to sample identification. Therefore the information on the COC was used to process and report the samples.

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-0P0716 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-0P0716

Lab ID#: 1609260-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	11	15

Client Sample ID: Formaldehyde-002-090716

Lab ID#: 1609260-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	20

Client Sample ID: Formaldehyde-003-0P0716

Lab ID#: 1609260-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde-001-0P0716

Lab ID#: 1609260-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920010	Date of Collection:	9/7/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	9/20/16 06:07 PM
		Date of Extraction:	9/20/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	11	15

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-090716

Lab ID#: 1609260-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920011	Date of Collection:	9/7/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	9/20/16 06:33 PM
		Date of Extraction:	9/20/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	14	20

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-0P0716

Lab ID#: 1609260-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920008	Date of Collection:	9/7/16
Dil. Factor:	1.00	Date of Analysis:	9/20/16 05:15 PM
		Date of Extraction:	9/20/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1609260-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920007	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/20/16 04:49 PM
		Date of Extraction:	9/20/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1609260-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/16 03:58 PM
		Date of Extraction: 9/20/16

Compound	%Recovery	Method Limits
Formaldehyde	110	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1609260-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/20/16 04:24 PM
		Date of Extraction:	9/20/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
 Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

**180 BLUE RAVINE ROAD, SUITE B
 FOLSOM, CA 95630
 (916) 985-1000 FAX (916) 985-1020**

Page 1 of 1

Project Manager Rhine Almonacy
 Collected by: (Print and Sign) Chen Liang / Chen Liang
 Company Louis Berger Email ralmonacy@louisberger.com
 Address 48 Wall St. 16th floor New York State NY Zip 10005
 Phone 973-418-1267 Fax _____

Project Info:
 P.O. # _____
 Project # _____
 Project Name North River WWTP

Turn Around Time:
 Normal
 Rush
specify _____

Circle Reporting Units:
 ppbv ppmv
 $\mu\text{g}/\text{m}^3$ mg/m³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01a	Formaldehyde-001-090716	channel 1	9/7/16	06:00	18:00	12h	713.0	Formaldehyde To-11A
02a	Formaldehyde-002-090716	channel 2	9/7/16	18:15	06:15	12h	712.8	
03a	Formaldehyde-003-090716	Blank	9/7/16	-	-	-	N/A	
_____ _____ _____ _____ _____								
Relinquished by: (signature) _____		Date/Time <u>9/8/16 1600</u>		Received by: (signature) <u>[Signature]</u>		Date/Time <u>9/8/16 10:30</u>		Pump Calibration Information
Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Pre-test Flow Rate: Post-test Flow Rate: Average Flow Rate: Notes:
Relinquished by: (signature) _____		Date/Time _____		Received by: (signature) _____		Date/Time _____		Notes: Custody Seals Intact? Yes No <input checked="" type="radio"/> None
Lab Use Only		Shipper Name <u>UPS</u>		Air Bill # _____		Temp (°C) <u>10.8</u>		Condition <u>GR</u>
Work Order #		1609260						

9/24/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1609332

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 9/15/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1609332

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

P.O. # 2001285.06.02

FAX:

PROJECT # North River WWTP

DATE RECEIVED: 09/15/2016

CONTACT: Ausha Scott

DATE COMPLETED: 09/24/2016

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde 001-091316	Modified TO-11A
02A	Formaldehyde 002-091316	Modified TO-11A
03A	Formaldehyde 003-091316	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY:



Technical Director

DATE: 09/24/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1609332

Three TO-11 Cartridge samples were received on September 15, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde 003-091316 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified

b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde 001-091316

Lab ID#: 1609332-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	23

Client Sample ID: Formaldehyde 002-091316

Lab ID#: 1609332-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	23

Client Sample ID: Formaldehyde 003-091316

Lab ID#: 1609332-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde 001-091316

Lab ID#: 1609332-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920012	Date of Collection:	9/13/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	9/20/16 06:59 PM
		Date of Extraction:	9/20/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	23

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde 002-091316

Lab ID#: 1609332-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920013	Date of Collection:	9/13/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	9/20/16 07:25 PM
		Date of Extraction:	9/20/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	16	23

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde 003-091316

Lab ID#: 1609332-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920009	Date of Collection:	9/13/16
Dil. Factor:	1.00	Date of Analysis:	9/20/16 05:41 PM
		Date of Extraction:	9/20/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1609332-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920007	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/20/16 04:49 PM
		Date of Extraction:	9/20/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1609332-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/20/16 03:58 PM
		Date of Extraction: 9/20/16

Compound	%Recovery	Method Limits
Formaldehyde	110	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1609332-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0920006	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/20/16 04:24 PM
		Date of Extraction:	9/20/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.I. Hotline (800) 467-4922.

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FOLSOM, CA 95630
(916) 985-1000 FAX (916) 985-1020

Project Manager Phine Amara

Collected by: (Print and Sign) Phine Amara

Company Louis Barker Email Amara@eurofins.com

Address 480 W 1st St, 16th Fl City New York State NY Zip 10005

Phone 212-612-7351 Fax 212-363-4341

Project Info:
PO. # _____
Project # _____
Project Name Newark Home Event
Turn Around Time:
 Normal
 Rush
Circle Reporting Units:
ppbv ppmv
 ug/m3 mg/m3

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01a	Formaldehyde 001-091316	091316	091316	0800	1800	7800	713.1	T01A-Formaldehyde
02a	Formaldehyde 002-091316	091316	091316	1815	2615	720	712.8	
03a	Formaldehyde 003-091316	091316	091316	N/A	N/A	N/A	N/A	

Relinquished by: (signature) [Signature] Date/Time 9/11/16 1615
Received by: (signature) [Signature] Date/Time 9/15/16 1020

Relinquished by: (signature) _____ Date/Time _____
Received by: (signature) _____ Date/Time _____

Pump Calibration Information
Pre-test Flow Rate: _____
Post-test Flow Rate: _____
Average Flow Rate: _____

Notes: _____

Lab Use Only
Shipper Name UPS Air Bill # _____ Temp (°C) 20°C Condition DR
Custody Seals Intact? Yes No None Work Order # 1609332

10/5/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1609520

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 9/22/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott


Project Manager

WORK ORDER #: 1609520

Work Order Summary

CLIENT:	Mr. Rhine Almonacy The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960	BILL TO:	Accounts Payable The Louis Berger Group, Inc. 412 Mount Kemble Avenue 5th Floor Morristown, NJ 07960
PHONE:	973-407-1000	P.O. #	2001285.06.02
FAX:		PROJECT #	North River WWTP
DATE RECEIVED:	09/22/2016	CONTACT:	Ausha Scott
DATE COMPLETED:	10/05/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde001-091916	Modified TO-11A
02A	Formaldehyde002-091916	Modified TO-11A
03A	Formaldehyde003-091916	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY:  DATE: 10/05/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
 Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards
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 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1609520

Three TO-11 Cartridge samples were received on September 22, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of ice/blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde003-091916 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde001-091916

Lab ID#: 1609520-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	13	18

Client Sample ID: Formaldehyde002-091916

Lab ID#: 1609520-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	12	16

Client Sample ID: Formaldehyde003-091916

Lab ID#: 1609520-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde001-091916

Lab ID#: 1609520-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928008	Date of Collection:	9/19/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	9/28/16 07:15 PM
		Date of Extraction:	9/28/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	13	18

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde002-091916

Lab ID#: 1609520-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928009	Date of Collection:	9/19/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	9/28/16 07:41 PM
		Date of Extraction:	9/28/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	12	16

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde003-091916

Lab ID#: 1609520-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928006	Date of Collection:	9/19/16
Dil. Factor:	1.00	Date of Analysis:	9/28/16 06:24 PM
		Date of Extraction:	9/28/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1609520-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/16 05:58 PM
		Date of Extraction:	9/28/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1609520-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/16 05:06 PM
		Date of Extraction:	9/28/16

Compound	%Recovery	Method Limits
Formaldehyde	96	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1609520-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/16 05:32 PM
		Date of Extraction:	9/28/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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**180 BLUE PAVINE ROAD, SUITE B
FOLSOM, CA 95630**

(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Blaine Anderson
 Collected by: (Print and Sign) Blaine Anderson
 Company Louis Berger Email _____
 Address 480 11st St City New York State NY Zip 10005
 Phone 212-612-7951 Fax 212-363-4347

Project Info:
 Project # _____
 Project Name New River KORT P

Turn Around Time:
 Normal
 Rush
specify

Circle Reporting Units:
 ppbv ppmv
 ug/m³ mg/m³

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01a	Farmville 001-091916	091916	0600	0615	0615-0620	5 min	713.10	70-11A Farmville
02a	Farmville 002-091916	091916	0615	0615	0615-0620	5 min	712.8	70-11A Farmville
03a	Farmville 003-091916	091916	0615	0615	0615-0620	5 min	712.8	70-11A Farmville

Relinquished by: (signature) [Signature] Date/Time 09/29/16 1715

Received by: (signature) [Signature] Date/Time 09/29/16 10:30

Pump/Calibration Information
 Pre-test Flow Rate: _____
 Post-test Flow Rate: _____
 Average Flow Rate: _____
 Notes: _____

Lab Use Only
 Shipper Name UPS Air Bill # _____ Temp (°C) 19.8°C Condition Good SDR Custody Seals Intact? Yes No None Work Order # 1609520

9/29/2016

Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown NJ 07960

Project Name: North River WWTP

Project #:

Workorder #: 1609614

Dear Mr. Rhine Almonacy

The following report includes the data for the above referenced project for sample(s) received on 9/27/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-11A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1609614

Work Order Summary

CLIENT: Mr. Rhine Almonacy
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

PHONE: 973-407-1000

FAX:

DATE RECEIVED: 09/27/2016

DATE COMPLETED: 09/29/2016

BILL TO: Accounts Payable
The Louis Berger Group, Inc.
412 Mount Kemble Avenue
5th Floor
Morristown, NJ 07960

P.O. # 2001285.06.02

PROJECT # North River WWTP

CONTACT: Ausha Scott

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	Formaldehyde-001-092516	Modified TO-11A
02A	Formaldehyde-002-092516	Modified TO-11A
03A	Formaldehyde-003-092516	Modified TO-11A
04A	Lab Blank	Modified TO-11A
05A	LCS	Modified TO-11A
05AA	LCSD	Modified TO-11A

CERTIFIED BY:



Technical Director

DATE: 09/29/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-11A
The Louis Berger Group, Inc.
Workorder# 1609614

Three TO-11 Cartridge samples were received on September 27, 2016. The laboratory performed analysis via modified Method TO-11A using reverse phase High Pressure Liquid Chromatography (HPLC) with an Ultraviolet (UV) Detector. The method involves eluting the sorbent tubes with acetonitrile using a gravity feed technique. Method modifications taken to run these samples include:

<i>Requirement</i>	<i>TO-11A</i>	<i>ATL Modifications</i>
ACN Purity Check	Contribution of analytes from ACN determined as described Sections 9.1.1 and 9.1.2 of Compendium TO-11A.	Total contribution of analytes from ACN and cartridge combined is determined.
Initial Calibration Curve (ICAL)	Multi-point using linear regression performed every 6 months; $r^2 > 0.999$	Multi-point using average Response Factor; % RSD ≤ 10 %. Re-calibration if daily cal. fails, major maintenance, or column change. Linear regression is performed when requested.
Blank Subtraction	Average blank concentrations calculated. Blank value subtracted from sample result.	One Lab Blank is analyzed per batch; no blank subtraction performed on samples.

Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4 ± 2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Analytical Notes

Sampling volume was supplied by the client. A sample volume of 713 L was used to report sample Formaldehyde-003-092516 and the Laboratory Blank.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
 AMBIENT AIR: EPA METHOD TO-11A HPLC**

Client Sample ID: Formaldehyde-001-092516

Lab ID#: 1609614-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	11	15

Client Sample ID: Formaldehyde-002-092516

Lab ID#: 1609614-02A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	11	15

Client Sample ID: Formaldehyde-003-092516

Lab ID#: 1609614-03A

No Detections Were Found.



Air Toxics

Client Sample ID: Formaldehyde-001-092516

Lab ID#: 1609614-01A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928010	Date of Collection:	9/25/16 6:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	9/28/16 08:07 PM
		Date of Extraction:	9/28/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	11	15

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-002-092516

Lab ID#: 1609614-02A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928011	Date of Collection:	9/25/16 6:15:00 AM
Dil. Factor:	1.00	Date of Analysis:	9/28/16 08:33 PM
		Date of Extraction:	9/28/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	11	15

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Formaldehyde-003-092516

Lab ID#: 1609614-03A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928007	Date of Collection:	9/25/16
Dil. Factor:	1.00	Date of Analysis:	9/28/16 06:50 PM
		Date of Extraction:	9/28/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: TO-11 Cartridge



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1609614-04A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/16 05:58 PM
		Date of Extraction:	9/28/16

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Formaldehyde	0.050	0.070	Not Detected	Not Detected

Air Sample Volume(L): 713

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1609614-05A

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/16 05:06 PM
		Date of Extraction:	9/28/16

Compound	%Recovery	Method Limits
Formaldehyde	96	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1609614-05AA

AMBIENT AIR: EPA METHOD TO-11A HPLC

File Name:	f0928004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/16 05:32 PM
		Date of Extraction:	9/28/16

Compound	%Recovery	Method Limits
Formaldehyde	95	85-115

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION



Air Toxics

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Eurofins assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE PAVINE ROAD, SUITE B
FOLSOM, CA 95630

(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Rhine Almonay
Collected by: (Print and Sign) Chen Liang
Company Louis Berger Email ralmonay@louisberger.com
Address 48 Wall St, 14th Fl city New York State NY Zip 10005
Phone 973-418-1267 Fax _____

Project Info: P.O. # _____
Project # _____
Project Name North River WWTTP

Turn Around Time: Normal
 Rush _____ specify _____

Circle Reporting Units: ppbv ppmv
 $\mu\text{g}/\text{m}^3$ mg/m^3

Lab I.D.	Field Sample I.D. (location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01a	Formaldehyde-001-092516	channel 1	9/25/16	06:00	18:00	12h	713.0	Formaldehyde To-11A
02a	Formaldehyde-002-092516	channel 2		18:15	06:15	12h	712.8	
03a	Formaldehyde-003-092516	Blank						

Relinquished by: (signature) _____ Date/Time 9/26/16 15:00
Received by: (signature) Quinn Augustin Date/Time 9/27/16 10:30
Relinquished by: (signature) _____ Date/Time _____
Received by: (signature) _____ Date/Time _____

Average Flow Rate: _____
Post-test Flow Rate: _____
Notes: _____

Pump Calibration Information
Pre-test Flow Rate: _____
Post-test Flow Rate: _____

Lab Use Only: Shipper Name UPS Air Bill # _____ Temp ($^{\circ}\text{C}$) 20.8^{cc} Condition SDR Custody/Seals Intact? Yes No None Work Order # 1609614

APPENDIX B

Met Tower Data

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date

Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
03/07/2016 00:00	14	284.7
03/07/2016 01:00	2.3	324.1
03/07/2016 02:00	5.7	303.6
03/07/2016 03:00	3.5	305.1
03/07/2016 04:00	8.1	266.7
03/07/2016 05:00	5	296.1
03/07/2016 06:00	0.9	271.7
03/07/2016 07:00	1.7	320.4
03/07/2016 08:00	1.1	328.3
03/07/2016 09:00	1.1	307.8
03/07/2016 10:00	1.4	319
03/07/2016 11:00	6.8	284.6
03/07/2016 12:00	11.2	208.5
03/07/2016 13:00	6.2	214.6
03/07/2016 14:00	6.6	217
03/07/2016 15:00	6.8	214.5
03/07/2016 16:00	5.9	219.2
03/07/2016 17:00	7.7	218.5
03/07/2016 18:00	8.8	212.8
03/07/2016 19:00	7.9	228.9
03/07/2016 20:00	9.7	232.2
03/07/2016 21:00	6.5	232.1
03/07/2016 22:00	12.4	331.6
03/07/2016 23:00	11.3	303.3
04/07/2016 00:00	8.5	272.2
04/07/2016 01:00	9.6	303.8
04/07/2016 02:00	8	285.5
04/07/2016 03:00	12.4	37.2
04/07/2016 04:00	6.3	208.2
04/07/2016 05:00	10.9	41.3
04/07/2016 06:00	11.2	296.3
04/07/2016 07:00	8.6	214.7
04/07/2016 08:00	6.4	220.4
04/07/2016 09:00	7	217.4
04/07/2016 10:00	11.3	30.2
04/07/2016 11:00	8.1	221.3
04/07/2016 12:00	10.6	220.6
04/07/2016 13:00	7	218.2
04/07/2016 14:00	3.7	158.4
04/07/2016 15:00	3.7	148
04/07/2016 16:00	3.8	136.3
04/07/2016 17:00	3.7	137.8

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
04/07/2016 18:00	4.4	166.3
04/07/2016 19:00	8.9	214
04/07/2016 20:00	9.1	217.1
04/07/2016 21:00	9.6	176.1
04/07/2016 22:00	11.4	73
04/07/2016 23:00	2.6	109.4
09/07/2016 00:00	2.8	105.2
09/07/2016 01:00	3.2	94.9
09/07/2016 02:00	3	89.1
09/07/2016 03:00	3	83.3
09/07/2016 04:00	3.4	85.6
09/07/2016 05:00	3.1	84.7
09/07/2016 06:00	2.8	83.3
09/07/2016 07:00	2.5	85.4
09/07/2016 08:00	3.1	99.5
09/07/2016 09:00	2	93.6
09/07/2016 10:00	2.4	95.7
09/07/2016 11:00	2.9	103.5
09/07/2016 12:00	3.1	110.9
09/07/2016 13:00	2.6	100.8
09/07/2016 14:00	3.4	109.4
09/07/2016 15:00	2.7	122.7
09/07/2016 16:00	2.8	134.5
09/07/2016 17:00	2.6	134.5
09/07/2016 18:00	2.6	112.4
09/07/2016 19:00	2.4	128.4
09/07/2016 20:00	2.7	102.5
09/07/2016 21:00	2.7	71
09/07/2016 22:00	2.3	122.6
09/07/2016 23:00	1.4	31.1
10/07/2016 00:00	1.2	339.2
10/07/2016 01:00	1.6	39.4
10/07/2016 02:00	2.4	76
10/07/2016 03:00	1.3	40
10/07/2016 04:00	0.6	304.5
10/07/2016 05:00	8.4	289.3
10/07/2016 06:00	3.6	221.1
10/07/2016 07:00	7.6	271.1
10/07/2016 08:00	10	182.9
10/07/2016 09:00	6	289.2
10/07/2016 10:00	12.2	191.3

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date

Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
10/07/2016 11:00	13.1	154.5
10/07/2016 12:00	10	282.2
10/07/2016 13:00	11.6	280.5
10/07/2016 14:00	6.2	291.1
10/07/2016 15:00	6.2	292.5
10/07/2016 16:00	5.3	294.3
10/07/2016 17:00	6.6	279.1
10/07/2016 18:00	5	303.7
10/07/2016 19:00	8.6	305.9
10/07/2016 20:00	3.8	334.4
10/07/2016 21:00	3.6	336.1
10/07/2016 22:00	3.3	332.6
10/07/2016 23:00	10.6	229.7
15/07/2016 00:00	9.3	234.1
15/07/2016 01:00	28.4	154.1
15/07/2016 02:00	35.1	117.7
15/07/2016 03:00	25.9	88.6
15/07/2016 04:00	13.5	75.4
15/07/2016 05:00	9.3	200.2
15/07/2016 06:00	9.4	194
15/07/2016 07:00	27.8	144.7
15/07/2016 08:00	2.1	266.5
15/07/2016 09:00	1.4	344.2
15/07/2016 10:00	1.9	341.4
15/07/2016 11:00	2.7	326.6
15/07/2016 12:00	16.7	9.1
15/07/2016 13:00	13.6	272.3
15/07/2016 14:00	13.4	267.4
15/07/2016 15:00	8.1	271.9
15/07/2016 16:00	9.9	271.1
15/07/2016 17:00	10.2	264
15/07/2016 18:00	11.5	285.6
15/07/2016 19:00	8.5	227.2
15/07/2016 20:00	8.9	241.7
15/07/2016 21:00	11.6	312.4
15/07/2016 22:00	10	263
15/07/2016 23:00	13.5	306.6
16/07/2016 00:00	13.6	306.9
16/07/2016 01:00	18.7	290.8
16/07/2016 02:00	9.5	209.6
16/07/2016 03:00	4.3	346.6

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
16/07/2016 04:00	1.9	357.5
16/07/2016 05:00	1.8	9.2
16/07/2016 06:00	2.1	11.4
16/07/2016 07:00	2	4.1
16/07/2016 08:00	2.4	12.4
16/07/2016 09:00	2.3	7.3
16/07/2016 10:00	2.7	331.3
16/07/2016 11:00	2.4	337.9
16/07/2016 12:00	4.4	318.6
16/07/2016 13:00	3.8	152.6
16/07/2016 14:00	5.2	161.5
16/07/2016 15:00	7.5	217.6
16/07/2016 16:00	5.7	202.9
16/07/2016 17:00	7	221.4
16/07/2016 18:00	8.7	220.1
16/07/2016 19:00	12.2	234.1
16/07/2016 20:00	13.6	286.5
16/07/2016 21:00	12.3	221.9
16/07/2016 22:00	9.3	209.1
16/07/2016 23:00	7.1	227.8
21/07/2016 00:00	16	2.5
21/07/2016 01:00	12.3	313.7
21/07/2016 02:00	11.4	341.8
21/07/2016 03:00	10.9	258.4
21/07/2016 04:00	11.5	41.7
21/07/2016 05:00	12.6	306.2
21/07/2016 06:00	8.2	285.8
21/07/2016 07:00	7.1	260.8
21/07/2016 08:00	13.5	27.4
21/07/2016 09:00	22	3.7
21/07/2016 10:00	22.9	195.9
21/07/2016 11:00	14.8	257.9
21/07/2016 12:00	7	215.8
21/07/2016 13:00	6.2	219.8
21/07/2016 14:00	7.8	220.8
21/07/2016 15:00	9.8	224.1
21/07/2016 16:00	6.9	205.2
21/07/2016 17:00	9.6	169.7
21/07/2016 18:00	4.9	189.4
21/07/2016 19:00	8.9	198.7
21/07/2016 20:00	7	213.1

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date

Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
21/07/2016 21:00	6.9	211.9
21/07/2016 22:00	7.9	214.9
21/07/2016 23:00	10.4	215.9
22/07/2016 00:00	7	210.9
22/07/2016 01:00	6.3	217.8
22/07/2016 02:00	18.9	41.1
22/07/2016 03:00	11.4	285.2
22/07/2016 04:00	9.4	234.2
22/07/2016 05:00	12.3	262
22/07/2016 06:00	9.2	230.8
22/07/2016 07:00	7.6	243.3
22/07/2016 08:00	9.2	237.7
22/07/2016 09:00	8.6	239.8
22/07/2016 10:00	8.1	242.9
22/07/2016 11:00	8.9	300.3
22/07/2016 12:00	7.1	251.3
22/07/2016 13:00	8.9	266.4
22/07/2016 14:00	9.2	263.2
22/07/2016 15:00	11.3	256.5
22/07/2016 16:00	9.1	265.5
22/07/2016 17:00	10.3	265.4
22/07/2016 18:00	10	238.8
22/07/2016 19:00	9.1	262.7
22/07/2016 20:00	10.8	238
22/07/2016 21:00	8.1	223.7
22/07/2016 22:00	9.8	243.6
22/07/2016 23:00	11	274.1
27/07/2016 00:00	2.1	7.6
27/07/2016 01:00	1.7	13.2
27/07/2016 02:00	1.5	344.9
27/07/2016 03:00	1.3	355
27/07/2016 04:00	0.8	337.4
27/07/2016 05:00	1	343.7
27/07/2016 06:00	1.7	356.5
27/07/2016 07:00	2.2	356.2
27/07/2016 08:00	2.2	2.6
27/07/2016 09:00	1.9	330.9
27/07/2016 10:00	1.7	321.2
27/07/2016 11:00	3.5	271
27/07/2016 12:00	9.8	251.5
27/07/2016 13:00	9.2	254.6

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
27/07/2016 14:00	17.3	217.8
27/07/2016 15:00	16.1	250.9
27/07/2016 16:00	8.2	220
27/07/2016 17:00	6.4	215
27/07/2016 18:00	7.6	51.7
27/07/2016 19:00	11.4	322
27/07/2016 20:00	9.3	211.6
27/07/2016 21:00	6.8	125
27/07/2016 22:00	6.9	173.3
27/07/2016 23:00	13.3	217.4
28/07/2016 00:00	15.3	207.2
28/07/2016 01:00	11.4	224.3
28/07/2016 02:00	15.7	213.3
28/07/2016 03:00	22.1	154.1
28/07/2016 04:00	2.3	214.8
28/07/2016 05:00	1	287.8
28/07/2016 06:00	0.9	313.4
28/07/2016 07:00	0.7	286.5
28/07/2016 08:00	1.4	323.9
28/07/2016 09:00	1.7	298.6
28/07/2016 10:00	2.3	287.3
28/07/2016 11:00	2.9	294.9
28/07/2016 12:00	2.5	293.4
28/07/2016 13:00	3	1.4
28/07/2016 14:00	3.8	148.6
28/07/2016 15:00	4.4	157
28/07/2016 16:00	7.4	210.1
28/07/2016 17:00	7.1	220.5
28/07/2016 18:00	7.4	257.9
28/07/2016 19:00	5.6	273.5
28/07/2016 20:00	7.9	272.4
28/07/2016 21:00	8.8	287.7
28/07/2016 22:00	3.7	296.3
28/07/2016 23:00	1.3	3
02/08/2016 00:00	2.4	82.1
02/08/2016 01:00	2.2	90.5
02/08/2016 02:00	2.6	89.9
02/08/2016 03:00	2.3	59.7
02/08/2016 04:00	2.1	59.5
02/08/2016 05:00	2.6	43.4
02/08/2016 06:00	2.7	66.7

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date

Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
02/08/2016 07:00	3.2	59.6
02/08/2016 08:00	4.4	67.2
02/08/2016 09:00	4.7	61.2
02/08/2016 10:00	3.8	68.1
02/08/2016 11:00	3.8	57.3
02/08/2016 12:00	3.6	55.8
02/08/2016 13:00	4.1	58.4
02/08/2016 14:00	4.7	37.2
02/08/2016 15:00	3.7	60
02/08/2016 16:00	3.7	65.4
02/08/2016 17:00	4	74.1
02/08/2016 18:00	2.7	66.2
02/08/2016 19:00	2.4	50.8
02/08/2016 20:00	2	73
02/08/2016 21:00	1.9	68.7
02/08/2016 22:00	1.9	39.7
02/08/2016 23:00	1.7	31.6
03/08/2016 00:00	2	28.2
03/08/2016 01:00	1.7	8.4
03/08/2016 02:00	1.6	2.9
03/08/2016 03:00	1.9	26.2
03/08/2016 04:00	2.5	37.3
03/08/2016 05:00	2.4	47.2
03/08/2016 06:00	2.3	46.6
03/08/2016 07:00	2.6	65.3
03/08/2016 08:00	3	61.3
03/08/2016 09:00	2.4	62.6
03/08/2016 10:00	2.1	79.4
03/08/2016 11:00	2.3	76.8
03/08/2016 12:00	4.6	219.8
03/08/2016 13:00	6.2	178.3
03/08/2016 14:00	7.1	155.8
03/08/2016 15:00	2.9	134.9
03/08/2016 16:00	3.4	109.6
03/08/2016 17:00	3.3	103.7
03/08/2016 18:00	2.4	129.5
03/08/2016 19:00	2.3	143.8
03/08/2016 20:00	2.1	139
03/08/2016 21:00	2.5	136.3
03/08/2016 22:00	1.9	136.2
03/08/2016 23:00	1.8	132.4

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date

Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
08/08/2016 00:00	1.5	330.5
08/08/2016 01:00	1.7	301.7
08/08/2016 02:00	1.1	310.1
08/08/2016 03:00	1.3	348.1
08/08/2016 04:00	1.3	359.5
08/08/2016 05:00	1.3	352
08/08/2016 06:00	1.4	346.9
08/08/2016 07:00	1.8	359.2
08/08/2016 08:00	3.1	15.3
08/08/2016 09:00	2.4	354.1
08/08/2016 10:00	1.9	333.4
08/08/2016 11:00	1.8	328.9
08/08/2016 12:00	1.6	355.8
08/08/2016 13:00	5.3	19.5
08/08/2016 14:00	1.6	352.4
08/08/2016 15:00	1.4	335.9
08/08/2016 16:00	1.6	342.7
08/08/2016 17:00	2.2	38.7
08/08/2016 18:00	2.5	112.3
08/08/2016 19:00	2.7	134.9
08/08/2016 20:00	2.5	132.3
08/08/2016 21:00	5.3	155.5
08/08/2016 22:00	7.1	210
08/08/2016 23:00	4.5	221.2
09/08/2016 00:00	14.4	99.4
09/08/2016 01:00	3.3	287.6
09/08/2016 02:00	1.1	304.9
09/08/2016 03:00	0.7	299.6
09/08/2016 04:00	1.1	270.2
09/08/2016 05:00	0.9	261.8
09/08/2016 06:00	0.9	299.4
09/08/2016 07:00	1.7	357.6
09/08/2016 08:00	1.7	332.2
09/08/2016 09:00	1.7	333.3
09/08/2016 10:00	7.4	171.3
09/08/2016 11:00	9.6	228.9
09/08/2016 12:00	9.3	218.4
09/08/2016 13:00	8.2	214.8
09/08/2016 14:00	6.9	197.3
09/08/2016 15:00	8.7	181.8
09/08/2016 16:00	4.7	190.4
09/08/2016 17:00	3.3	179.9

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date

Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
09/08/2016 18:00	4	174.4
09/08/2016 19:00	2.8	155
09/08/2016 20:00	2.6	176.2
09/08/2016 21:00	7.8	173.9
09/08/2016 22:00	5.2	200.8
09/08/2016 23:00	7.9	178.7
14/08/2016 00:00	1.2	346.6
14/08/2016 01:00	2.6	10.4
14/08/2016 02:00	0.7	345.8
14/08/2016 03:00	6.9	206.1
14/08/2016 04:00	5.1	222
14/08/2016 05:00	27	167.3
14/08/2016 06:00	47.2	84.8
14/08/2016 07:00	21.4	273.8
14/08/2016 08:00	9.1	280.4
14/08/2016 09:00	11.9	283.4
14/08/2016 10:00	11.3	262.2
14/08/2016 11:00	9.5	259.3
14/08/2016 12:00	11	255.3
14/08/2016 13:00	12.9	250.1
14/08/2016 14:00	10.1	258.7
14/08/2016 15:00	9.4	272
14/08/2016 16:00	10.4	275.3
14/08/2016 17:00	9.2	265.8
14/08/2016 18:00	6.6	318.2
14/08/2016 19:00	1.3	325.6
14/08/2016 20:00	3.3	287.9
14/08/2016 21:00	2.9	290.7
14/08/2016 22:00	9.4	276.5
14/08/2016 23:00	7.5	251.2
15/08/2016 00:00	5.4	340
15/08/2016 01:00	2.4	313.9
15/08/2016 02:00	3.1	320.4
15/08/2016 03:00	1.2	341
15/08/2016 04:00	1.8	344.4
15/08/2016 05:00	3.3	330.9
15/08/2016 06:00	2	343.9
15/08/2016 07:00	1.6	338.1
15/08/2016 08:00	1.5	326.9
15/08/2016 09:00	1.6	347.9
15/08/2016 10:00	1.8	342.7

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
15/08/2016 11:00	2.2	315
15/08/2016 12:00	2.9	323.6
15/08/2016 13:00	2.9	334.8
15/08/2016 14:00	5.4	324.1
15/08/2016 15:00	2.8	330.7
15/08/2016 16:00	2.6	4.4
15/08/2016 17:00	2.3	0.3
15/08/2016 18:00	2.7	22.2
15/08/2016 19:00	1.9	45.2
15/08/2016 20:00	2.2	127.3
15/08/2016 21:00	1.5	123.3
15/08/2016 22:00	5.5	253.4
15/08/2016 23:00	4	320
20/08/2016 00:00	1	350.9
20/08/2016 01:00	1.5	14.8
20/08/2016 02:00	1.6	14.7
20/08/2016 03:00	2.2	18.3
20/08/2016 04:00	1.9	18.3
20/08/2016 05:00	1.4	36.8
20/08/2016 06:00	1.7	53.6
20/08/2016 07:00	3	77.3
20/08/2016 08:00	2.8	73.8
20/08/2016 09:00	3.2	78.6
20/08/2016 10:00	2.3	355.9
20/08/2016 11:00	4.8	28.1
20/08/2016 12:00	6.8	116.1
20/08/2016 13:00	4.9	105
20/08/2016 14:00	5.2	104.4
20/08/2016 15:00	3.6	113.3
20/08/2016 16:00	3.7	130.7
20/08/2016 17:00	3.1	145.8
20/08/2016 18:00	4.6	141.1
20/08/2016 19:00	3.3	138.3
20/08/2016 20:00	2.2	141.3
20/08/2016 21:00	2.1	140.6
20/08/2016 22:00	2.2	117.6
20/08/2016 23:00	2	117.2
21/08/2016 00:00	2.4	100.6
21/08/2016 01:00	1.9	107.6
21/08/2016 02:00	2.2	97.3
21/08/2016 03:00	2.4	97.8

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
21/08/2016 04:00	2.9	100.1
21/08/2016 05:00	2.1	105.2
21/08/2016 06:00	2.3	128.1
21/08/2016 07:00	6.9	135.3
21/08/2016 08:00	7	160.4
21/08/2016 09:00	8.5	340.5
21/08/2016 10:00	4.1	144.1
21/08/2016 11:00	8.2	138.5
21/08/2016 12:00	8.8	311
21/08/2016 13:00	10.1	333.2
21/08/2016 14:00	4.3	139.3
21/08/2016 15:00	4.6	127
21/08/2016 16:00	3.3	150.2
21/08/2016 17:00	5.9	167.8
21/08/2016 18:00	4.4	156.6
21/08/2016 19:00	8.4	187.4
21/08/2016 20:00	6.6	132.3
21/08/2016 21:00	7	216.9
21/08/2016 22:00	8.9	180.7
21/08/2016 23:00	5	291.5
26/08/2016 00:00	10.7	261.6
26/08/2016 01:00	7.2	222
26/08/2016 02:00	10.5	220.1
26/08/2016 03:00	7.2	217.7
26/08/2016 04:00	7.2	218.9
26/08/2016 05:00	8.5	210.3
26/08/2016 06:00	7.4	225.4
26/08/2016 07:00	11.5	266.6
26/08/2016 08:00	8.7	219.2
26/08/2016 09:00	14.8	206.8
26/08/2016 10:00	5.3	313
26/08/2016 11:00	5	308.5
26/08/2016 12:00	5	308.9
26/08/2016 13:00	6.2	306.6
26/08/2016 14:00	5.1	311.1
26/08/2016 15:00	4.1	315
26/08/2016 16:00	3.7	338.4
26/08/2016 17:00	3.5	328.2
26/08/2016 18:00	6.4	330.7
26/08/2016 19:00	2.9	326.6
26/08/2016 20:00	2.8	333

Met Tower Data Summary Report



Company: New York City D. E. P.
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 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
26/08/2016 21:00	2.5	344.5
26/08/2016 22:00	2.1	19
26/08/2016 23:00	2.3	19
27/08/2016 00:00	2.1	3.7
27/08/2016 01:00	2.1	16.2
27/08/2016 02:00	2.5	19.6
27/08/2016 03:00	2.2	21.1
27/08/2016 04:00	2.7	20.3
27/08/2016 05:00	3.9	23.1
27/08/2016 06:00	3.7	18.4
27/08/2016 07:00	3.8	19.5
27/08/2016 08:00	3.2	15.5
27/08/2016 09:00	3	41.5
27/08/2016 10:00	3.6	59.2
27/08/2016 11:00	3.2	49.3
27/08/2016 12:00	2.3	53.9
27/08/2016 13:00	2.4	7.8
27/08/2016 14:00	9.2	189.4
27/08/2016 15:00	6	164.8
27/08/2016 16:00	10	144.7
27/08/2016 17:00	5.6	162.6
27/08/2016 18:00	4.1	135.7
27/08/2016 19:00	3.4	125.4
27/08/2016 20:00	2.2	133.1
27/08/2016 21:00	2	166.1
27/08/2016 22:00	7.7	204.5
27/08/2016 23:00	0.7	287.9
01/09/2016 00:00	10.2	269
01/09/2016 01:00	11.2	299.2
01/09/2016 02:00	12.8	5
01/09/2016 03:00	9.4	227.3
01/09/2016 04:00	10.7	293.3
01/09/2016 05:00	10.2	252.9
01/09/2016 06:00	2.7	302.3
01/09/2016 07:00	9.9	238
01/09/2016 08:00	8	245.9
01/09/2016 09:00	3.5	242.2
01/09/2016 10:00	3.4	219.2
01/09/2016 11:00	0.9	270.5
01/09/2016 12:00	2	316.3
01/09/2016 13:00	0.8	325.3

Met Tower Data Summary Report



Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date

Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
01/09/2016 14:00	1.9	56.1
01/09/2016 15:00	2.2	82.9
01/09/2016 16:00	2.1	97.7
01/09/2016 17:00	1.1	96.1
01/09/2016 18:00	10.1	60
01/09/2016 19:00	1.6	354.4
01/09/2016 20:00	6.8	307
01/09/2016 21:00	5.4	342.3
01/09/2016 22:00	4.1	342.4
01/09/2016 23:00	3.4	338.4
02/09/2016 00:00	3.3	354.5
02/09/2016 01:00	4.6	1.8
02/09/2016 02:00	4.7	0.4
02/09/2016 03:00	3.5	350.8
02/09/2016 04:00	3.2	356.9
02/09/2016 05:00	3.6	359.7
02/09/2016 06:00	3.7	0.6
02/09/2016 07:00	4.5	360
02/09/2016 08:00	4.7	15.7
02/09/2016 09:00	4.3	23.2
02/09/2016 10:00	2.9	10.2
02/09/2016 11:00	2.3	353.4
02/09/2016 12:00	3.5	3.9
02/09/2016 13:00	4	14.1
02/09/2016 14:00	3.8	17.2
02/09/2016 15:00	3.7	14.1
02/09/2016 16:00	3.5	10.7
02/09/2016 17:00	3.9	14.5
02/09/2016 18:00	2.9	11.9
02/09/2016 19:00	3.2	24
02/09/2016 20:00	3.5	25.8
02/09/2016 21:00	3	36.7
02/09/2016 22:00	2.7	34.7
02/09/2016 23:00	2.5	39.8
07/09/2016 00:00	5.2	24.6
07/09/2016 01:00	4.6	24.6
07/09/2016 02:00	4.8	24
07/09/2016 03:00	4.6	24.7
07/09/2016 04:00	3.8	21
07/09/2016 05:00	4.2	19.9
07/09/2016 06:00	5.1	20

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Company: New York City D. E. P.
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 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
07/09/2016 07:00	5.3	18
07/09/2016 08:00	6	22.1
07/09/2016 09:00	6.7	20.1
07/09/2016 10:00	5.4	19.6
07/09/2016 11:00	4.2	10.7
07/09/2016 12:00	3.4	12.8
07/09/2016 13:00	3.7	12.4
07/09/2016 14:00	4	20
07/09/2016 15:00	4.1	17.4
07/09/2016 16:00	4.1	32.8
07/09/2016 17:00	3.2	70.3
07/09/2016 18:00	2.8	72.7
07/09/2016 19:00	2.4	70
07/09/2016 20:00	2.1	82.1
07/09/2016 21:00	1.5	69.1
07/09/2016 22:00	1.4	5.7
07/09/2016 23:00	1.9	6
08/09/2016 00:00	1	349.5
08/09/2016 01:00	0.7	340.8
08/09/2016 02:00	0.8	351.4
08/09/2016 03:00	1.3	1.7
08/09/2016 04:00	1.4	5.3
08/09/2016 05:00	1.1	18.2
08/09/2016 06:00	1.4	11.4
08/09/2016 07:00	1.4	323.8
08/09/2016 08:00	17.9	219.3
08/09/2016 09:00	4.8	219.5
08/09/2016 10:00	13.7	214
08/09/2016 11:00	24	34.3
08/09/2016 12:00	5.3	221.1
08/09/2016 13:00	5.8	217.7
08/09/2016 14:00	8.9	229.6
08/09/2016 15:00	4.5	147.6
08/09/2016 16:00	3.3	138.1
08/09/2016 17:00	2.7	126.6
08/09/2016 18:00	3.2	122.3
08/09/2016 19:00	2.1	121.8
08/09/2016 20:00	8.3	219.6
08/09/2016 21:00	8.5	234.8
08/09/2016 22:00	10.6	242.9
08/09/2016 23:00	12.7	235.9

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Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
13/09/2016 00:00	12.7	269.7
13/09/2016 01:00	10	268.3
13/09/2016 02:00	13.6	207.6
13/09/2016 03:00	14	4.2
13/09/2016 04:00	12.1	270.2
13/09/2016 05:00	11.7	17.5
13/09/2016 06:00	10.1	270.4
13/09/2016 07:00	11	311.2
13/09/2016 08:00	11.2	224.4
13/09/2016 09:00	6.5	216.7
13/09/2016 10:00	17.3	80.2
13/09/2016 11:00	6.9	218.9
13/09/2016 12:00	5.7	216.3
13/09/2016 13:00	6.4	206.8
13/09/2016 14:00	8.8	322.4
13/09/2016 15:00	3.6	138.8
13/09/2016 16:00	3.3	138.7
13/09/2016 17:00	2.8	143.8
13/09/2016 18:00	4.6	135.1
13/09/2016 19:00	7.6	175.7
13/09/2016 20:00	6.4	199.6
13/09/2016 21:00	6	214.1
13/09/2016 22:00	7.2	217.8
13/09/2016 23:00	7.1	210.3
14/09/2016 00:00	6.5	221.6
14/09/2016 01:00	7.3	221.9
14/09/2016 02:00	10	20.3
14/09/2016 03:00	16.2	21.7
14/09/2016 04:00	9.1	254.1
14/09/2016 05:00	9.5	249.1
14/09/2016 06:00	9.4	268.3
14/09/2016 07:00	12.7	8.4
14/09/2016 08:00	9.4	222.9
14/09/2016 09:00	5.1	213.5
14/09/2016 10:00	6.5	219.4
14/09/2016 11:00	15.6	218.2
14/09/2016 12:00	14	215.7
14/09/2016 13:00	7.1	224.3
14/09/2016 14:00	7.8	223
14/09/2016 15:00	7.6	228.8
14/09/2016 16:00	6.3	278.9
14/09/2016 17:00	3.2	9.3

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Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date

Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
14/09/2016 18:00	4.8	330.7
14/09/2016 19:00	3.7	345.9
14/09/2016 20:00	3.3	346.2
14/09/2016 21:00	4.8	7.7
14/09/2016 22:00	6.2	20.9
14/09/2016 23:00	6.8	18.7
19/09/2016 00:00	8	210.7
19/09/2016 01:00	8.4	214.6
19/09/2016 02:00	9.5	223.1
19/09/2016 03:00	8.5	214.2
19/09/2016 04:00	11.7	356
19/09/2016 05:00	6.5	266.8
19/09/2016 06:00	3.2	314.6
19/09/2016 07:00	2.4	321
19/09/2016 08:00	4.3	243.1
19/09/2016 09:00	16.4	34.4
19/09/2016 10:00	3	104
19/09/2016 11:00	3.2	118.8
19/09/2016 12:00	2.4	167.9
19/09/2016 13:00	5.9	152
19/09/2016 14:00	1.9	131.4
19/09/2016 15:00	1.7	98.6
19/09/2016 16:00	1.6	105.6
19/09/2016 17:00	1.6	98.2
19/09/2016 18:00	2.3	99.6
19/09/2016 19:00	1.7	116.3
19/09/2016 20:00	1.1	93.7
19/09/2016 21:00	1.5	343.9
19/09/2016 22:00	1.7	345.1
19/09/2016 23:00	1.8	17.3
20/09/2016 00:00	1.7	27.9
20/09/2016 01:00	1.4	46.7
20/09/2016 02:00	1.3	36.4
20/09/2016 03:00	1.4	13.9
20/09/2016 04:00	1.3	15
20/09/2016 05:00	2	3.8
20/09/2016 06:00	2.1	355.6
20/09/2016 07:00	3.3	2
20/09/2016 08:00	3.2	10.4
20/09/2016 09:00	2.4	357.1
20/09/2016 10:00	2	351.9

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Company: New York City D. E. P.
 North River Wastewater Treatment Plant
 New York, NY 10031

Data Group: Valid Met Tower Data on Formaldehyde Sampling Date
Report Name: 3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
20/09/2016 11:00	1.8	333.1
20/09/2016 12:00	1.6	324.7
20/09/2016 13:00	1.6	327.9
20/09/2016 14:00	1.4	3.5
20/09/2016 15:00	1.4	353.5
20/09/2016 16:00	1.5	6.9
20/09/2016 17:00	1.8	138.1
20/09/2016 18:00	7.6	175.2
20/09/2016 19:00	18.5	198.9
20/09/2016 20:00	10	207.3
20/09/2016 21:00	11	28.8
20/09/2016 22:00	12	134.8
20/09/2016 23:00	8.9	151.7
25/09/2016 00:00	2.5	357.1
25/09/2016 01:00	2.5	1.4
25/09/2016 02:00	1.4	348.4
25/09/2016 03:00	2.3	351.3
25/09/2016 04:00	1.7	338.4
25/09/2016 05:00	1.4	328.4
25/09/2016 06:00	1.4	320.4
25/09/2016 07:00	1.6	328.8
25/09/2016 08:00	2.8	10.3
25/09/2016 09:00	3.1	18
25/09/2016 10:00	3	6.2
25/09/2016 11:00	3.4	15.6
25/09/2016 12:00	3.5	18.8
25/09/2016 13:00	2.9	17
25/09/2016 14:00	3	20.4
25/09/2016 15:00	2.1	14.1
25/09/2016 16:00	2.2	356.8
25/09/2016 17:00	1.6	350
25/09/2016 18:00	1.2	354.6
25/09/2016 19:00	0.8	323.7
25/09/2016 20:00	0.8	319.7
25/09/2016 21:00	1.8	52.7
25/09/2016 22:00	2.6	85.2
25/09/2016 23:00	1.4	76.3
26/09/2016 00:00	1.2	35.2
26/09/2016 01:00	1.9	23.2
26/09/2016 02:00	2.2	28
26/09/2016 03:00	1.7	37.3

Met Tower Data Summary Report

Company:

New York City D. E. P.
North River Wastewater Treatment Plant
New York, NY 10031



Data Group:

Valid Met Tower Data on Formaldehyde Sampling Date

Report Name:

3rd Quarter 2016

Date & Time	WS	WD
	mph	Deg
26/09/2016 04:00	2.4	39.5
26/09/2016 05:00	2	37.8
26/09/2016 06:00	1.9	20.1
26/09/2016 07:00	1.6	29.6
26/09/2016 08:00	2.3	59.7
26/09/2016 09:00	4.7	83.7
26/09/2016 10:00	10.3	102.8
26/09/2016 11:00	11.9	47.8
26/09/2016 12:00	7	219.8
26/09/2016 13:00	7.4	217.1
26/09/2016 14:00	5.5	165.3
26/09/2016 15:00	3.9	145.7
26/09/2016 16:00	9	127.3
26/09/2016 17:00	4.1	180.6
26/09/2016 18:00	4.4	189.7
26/09/2016 19:00	4.5	200.8
26/09/2016 20:00	9.6	185.6
26/09/2016 21:00	4.7	187.1
26/09/2016 22:00	6	188.8
26/09/2016 23:00	4.2	196.3

APPENDIX C

Flow Rate and Volume

aqms5
formaldehyde001

Ch. 1 Cartridge Started Sunday, July 03, 2016 6:00:04

Flow Rate Set Point 1.00 l/min

Stopped Sunday, July 03, 2016 18:00:24

Total Volume 713.01 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.066 l/min

Ending Leak Rate 0.057 l/min

Flow Controller Zero -0.004 l/min

Error Code 258

Error Status Leak Check Flow Limit Exceeded

Post Leak Check Flow Limit Exceeded

Time	Flow Rate	Volume	Temp
Sunday, July 03, 2016 6:00:31	0.141	0.23	50.4
Sunday, July 03, 2016 6:05:31	0.991	5.18	50.4
Sunday, July 03, 2016 6:10:32	0.991	10.15	50.1
Sunday, July 03, 2016 6:15:32	0.990	15.10	50.6
Sunday, July 03, 2016 6:20:33	0.990	20.07	50.3
Sunday, July 03, 2016 6:25:33	0.990	25.02	50.2
Sunday, July 03, 2016 6:30:34	0.990	29.99	50.0
Sunday, July 03, 2016 6:35:34	0.990	34.94	50.0
Sunday, July 03, 2016 6:40:35	0.990	39.91	49.5
Sunday, July 03, 2016 6:45:35	0.991	44.87	51.0
Sunday, July 03, 2016 6:50:36	0.991	49.83	49.8
Sunday, July 03, 2016 6:55:36	0.991	54.79	50.2
Sunday, July 03, 2016 7:00:37	0.991	59.76	50.5
Sunday, July 03, 2016 7:05:37	0.991	64.71	50.1
Sunday, July 03, 2016 7:10:38	0.991	69.68	50.8
Sunday, July 03, 2016 7:15:38	0.991	74.63	50.4
Sunday, July 03, 2016 7:20:39	0.991	79.60	50.6
Sunday, July 03, 2016 7:25:39	0.991	84.55	50.9
Sunday, July 03, 2016 7:30:40	0.991	89.52	50.8
Sunday, July 03, 2016 7:35:40	0.991	94.48	50.7
Sunday, July 03, 2016 7:40:41	0.991	99.44	50.1
Sunday, July 03, 2016 7:45:41	0.991	104.40	50.5
Sunday, July 03, 2016 7:50:42	0.991	109.37	49.6
Sunday, July 03, 2016 7:55:43	0.991	114.34	50.2
Sunday, July 03, 2016 8:00:43	0.991	119.29	50.4
Sunday, July 03, 2016 8:05:44	0.991	124.26	50.4
Sunday, July 03, 2016 8:10:44	0.991	129.21	50.2
Sunday, July 03, 2016 8:15:45	0.991	134.18	50.0
Sunday, July 03, 2016 8:20:45	0.991	139.13	50.8
Sunday, July 03, 2016 8:25:46	0.991	144.10	50.5
Sunday, July 03, 2016 8:30:46	0.991	149.06	50.5
Sunday, July 03, 2016 8:35:47	0.991	154.03	49.8

Sunday, July 03, 2016 8:40:47 0.991	158.98	49.9
Sunday, July 03, 2016 8:45:48 0.991	163.95	50.5
Sunday, July 03, 2016 8:50:48 0.991	168.90	50.5
Sunday, July 03, 2016 8:55:49 0.991	173.87	50.8
Sunday, July 03, 2016 9:00:49 0.991	178.82	50.5
Sunday, July 03, 2016 9:05:50 0.991	183.79	49.9
Sunday, July 03, 2016 9:10:50 0.991	188.75	50.8
Sunday, July 03, 2016 9:15:51 0.991	193.72	50.2
Sunday, July 03, 2016 9:20:51 0.991	198.67	50.5
Sunday, July 03, 2016 9:25:52 0.991	203.64	50.1
Sunday, July 03, 2016 9:30:52 0.991	208.59	50.1
Sunday, July 03, 2016 9:35:53 0.991	213.56	50.5
Sunday, July 03, 2016 9:40:53 0.991	218.51	50.5
Sunday, July 03, 2016 9:45:54 0.991	223.48	50.4
Sunday, July 03, 2016 9:50:54 0.991	228.44	50.9
Sunday, July 03, 2016 9:55:55 0.991	233.41	50.9
Sunday, July 03, 2016 10:00:55 0.991	238.36	50.6
Sunday, July 03, 2016 10:05:56 0.991	243.33	50.0
Sunday, July 03, 2016 10:10:56 0.991	248.28	50.4
Sunday, July 03, 2016 10:15:57 0.991	253.25	50.9
Sunday, July 03, 2016 10:20:57 0.991	258.20	50.7
Sunday, July 03, 2016 10:25:58 0.991	263.17	50.4
Sunday, July 03, 2016 10:30:58 0.991	268.13	50.5
Sunday, July 03, 2016 10:35:59 0.991	273.10	50.3
Sunday, July 03, 2016 10:40:59 0.991	278.05	50.0
Sunday, July 03, 2016 10:46:00 0.991	283.02	50.5
Sunday, July 03, 2016 10:51:00 0.991	287.97	50.6
Sunday, July 03, 2016 10:56:01 0.991	292.94	51.1
Sunday, July 03, 2016 11:01:01 0.991	297.89	50.6
Sunday, July 03, 2016 11:06:02 0.991	302.86	50.4
Sunday, July 03, 2016 11:11:02 0.991	307.82	49.8
Sunday, July 03, 2016 11:16:03 0.991	312.79	50.0
Sunday, July 03, 2016 11:21:04 0.991	317.75	50.5
Sunday, July 03, 2016 11:26:04 0.991	322.71	50.0
Sunday, July 03, 2016 11:31:05 0.991	327.68	49.7
Sunday, July 03, 2016 11:36:05 0.991	332.63	50.2
Sunday, July 03, 2016 11:41:06 0.991	337.60	50.1
Sunday, July 03, 2016 11:46:06 0.991	342.55	50.1
Sunday, July 03, 2016 11:51:07 0.991	347.52	49.7
Sunday, July 03, 2016 11:56:07 0.991	352.48	50.8
Sunday, July 03, 2016 12:01:08 0.991	357.45	50.1
Sunday, July 03, 2016 12:06:08 0.991	362.40	50.5
Sunday, July 03, 2016 12:11:09 0.991	367.37	49.8
Sunday, July 03, 2016 12:16:09 0.991	372.32	50.0
Sunday, July 03, 2016 12:21:10 0.991	377.29	50.7
Sunday, July 03, 2016 12:26:10 0.991	382.24	50.9
Sunday, July 03, 2016 12:31:11 0.991	387.21	50.1
Sunday, July 03, 2016 12:36:11 0.991	392.17	50.1
Sunday, July 03, 2016 12:41:12 0.991	397.14	50.0
Sunday, July 03, 2016 12:46:12 0.991	402.09	50.5
Sunday, July 03, 2016 12:51:13 0.991	407.06	50.8
Sunday, July 03, 2016 12:56:13 0.991	412.01	50.0
Sunday, July 03, 2016 13:01:14 0.991	416.98	50.3
Sunday, July 03, 2016 13:06:14 0.991	421.93	50.4

Sunday, July 03, 2016 13:11:15 0.991	426.90	50.6
Sunday, July 03, 2016 13:16:15 0.991	431.86	50.8
Sunday, July 03, 2016 13:21:16 0.991	436.83	50.0
Sunday, July 03, 2016 13:26:16 0.991	441.78	50.3
Sunday, July 03, 2016 13:31:17 0.991	446.75	50.8
Sunday, July 03, 2016 13:36:17 0.991	451.70	50.5
Sunday, July 03, 2016 13:41:18 0.991	456.67	50.2
Sunday, July 03, 2016 13:46:18 0.991	461.62	50.1
Sunday, July 03, 2016 13:51:19 0.991	466.59	51.0
Sunday, July 03, 2016 13:56:19 0.991	471.55	50.5
Sunday, July 03, 2016 14:01:20 0.991	476.52	49.9
Sunday, July 03, 2016 14:06:20 0.991	481.47	50.5
Sunday, July 03, 2016 14:11:21 0.991	486.44	50.8
Sunday, July 03, 2016 14:16:21 0.991	491.39	50.5
Sunday, July 03, 2016 14:21:22 0.991	496.36	50.9
Sunday, July 03, 2016 14:26:22 0.991	501.32	50.4
Sunday, July 03, 2016 14:31:23 0.991	506.29	50.9
Sunday, July 03, 2016 14:36:23 0.991	511.24	50.3
Sunday, July 03, 2016 14:41:24 0.991	516.21	50.9
Sunday, July 03, 2016 14:46:24 0.991	521.16	50.9
Sunday, July 03, 2016 14:51:25 0.991	526.13	50.5
Sunday, July 03, 2016 14:56:25 0.991	531.08	50.5
Sunday, July 03, 2016 15:01:26 0.991	536.05	51.0
Sunday, July 03, 2016 15:06:26 0.991	541.01	50.4
Sunday, July 03, 2016 15:11:27 0.991	545.98	50.7
Sunday, July 03, 2016 15:16:27 0.991	550.93	50.7
Sunday, July 03, 2016 15:21:28 0.991	555.90	50.1
Sunday, July 03, 2016 15:26:28 0.991	560.85	50.7
Sunday, July 03, 2016 15:31:29 0.991	565.82	50.6
Sunday, July 03, 2016 15:36:29 0.991	570.77	50.5
Sunday, July 03, 2016 15:41:30 0.991	575.74	50.1
Sunday, July 03, 2016 15:46:31 0.991	580.71	50.3
Sunday, July 03, 2016 15:51:31 0.991	585.67	50.5
Sunday, July 03, 2016 15:56:32 0.991	590.64	50.8
Sunday, July 03, 2016 16:01:32 0.991	595.59	50.5
Sunday, July 03, 2016 16:06:33 0.991	600.56	50.5
Sunday, July 03, 2016 16:11:33 0.991	605.51	50.6
Sunday, July 03, 2016 16:16:34 0.991	610.48	50.1
Sunday, July 03, 2016 16:21:34 0.991	615.43	50.5
Sunday, July 03, 2016 16:26:35 0.991	620.40	49.8
Sunday, July 03, 2016 16:31:35 0.991	625.36	50.2
Sunday, July 03, 2016 16:36:36 0.991	630.33	51.0
Sunday, July 03, 2016 16:41:36 0.991	635.28	50.5
Sunday, July 03, 2016 16:46:37 0.991	640.25	49.9
Sunday, July 03, 2016 16:51:37 0.991	645.20	50.1
Sunday, July 03, 2016 16:56:38 0.991	650.17	50.1
Sunday, July 03, 2016 17:01:38 0.991	655.13	50.6
Sunday, July 03, 2016 17:06:39 0.991	660.10	50.6
Sunday, July 03, 2016 17:11:39 0.991	665.05	50.8
Sunday, July 03, 2016 17:16:40 0.991	670.02	49.8
Sunday, July 03, 2016 17:21:40 0.991	674.97	50.8
Sunday, July 03, 2016 17:26:41 0.991	679.94	50.9
Sunday, July 03, 2016 17:31:41 0.991	684.89	50.6
Sunday, July 03, 2016 17:36:42 0.991	689.86	50.1

Sunday, July 03, 2016 17:41:42 0.991	694.82	50.2
Sunday, July 03, 2016 17:46:43 0.991	699.79	50.6
Sunday, July 03, 2016 17:51:43 0.991	704.74	49.9
Sunday, July 03, 2016 17:56:44 0.991	709.71	50.5
Sunday, July 03, 2016 18:00:02 0.991	712.98	49.8

aqms5

formaldehyde002

Ch. 2 Cartridge Started Sunday, July 03, 2016 18:15:05

Flow Rate Set Point 1.00 l/min

Stopped Monday, July 04, 2016 6:15:26

Total Volume 712.80 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.001 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Sunday, July 03, 2016 18:15:31	0.080	0.21	49.4
Sunday, July 03, 2016 18:20:32	0.990	5.19	50.1
Sunday, July 03, 2016 18:25:32	0.990	10.14	50.1
Sunday, July 03, 2016 18:30:33	0.990	15.10	49.8
Sunday, July 03, 2016 18:35:33	0.990	20.06	50.9
Sunday, July 03, 2016 18:40:34	0.990	25.02	50.1
Sunday, July 03, 2016 18:45:34	0.990	29.97	50.1
Sunday, July 03, 2016 18:50:35	0.990	34.94	49.8
Sunday, July 03, 2016 18:55:35	0.990	39.89	50.9
Sunday, July 03, 2016 19:00:36	0.990	44.86	49.9
Sunday, July 03, 2016 19:05:36	0.990	49.81	50.5
Sunday, July 03, 2016 19:10:37	0.990	54.78	49.9
Sunday, July 03, 2016 19:15:37	0.990	59.73	50.5
Sunday, July 03, 2016 19:20:37	0.990	64.68	50.4
Sunday, July 03, 2016 19:25:38	0.990	69.65	50.6
Sunday, July 03, 2016 19:30:38	0.990	74.60	50.5
Sunday, July 03, 2016 19:35:39	0.990	79.57	51.0
Sunday, July 03, 2016 19:40:39	0.990	84.52	50.6
Sunday, July 03, 2016 19:45:40	0.990	89.49	50.5
Sunday, July 03, 2016 19:50:40	0.990	94.44	50.5
Sunday, July 03, 2016 19:55:41	0.990	99.41	50.4
Sunday, July 03, 2016 20:00:41	0.990	104.36	50.1
Sunday, July 03, 2016 20:05:41	0.990	109.31	50.0
Sunday, July 03, 2016 20:10:42	0.990	114.28	50.9
Sunday, July 03, 2016 20:15:42	0.990	119.23	50.2
Sunday, July 03, 2016 20:20:43	0.990	124.20	50.2
Sunday, July 03, 2016 20:25:43	0.990	129.15	50.6
Sunday, July 03, 2016 20:30:44	0.990	134.12	50.9
Sunday, July 03, 2016 20:35:44	0.990	139.07	50.3
Sunday, July 03, 2016 20:40:45	0.990	144.04	50.3
Sunday, July 03, 2016 20:45:45	0.990	148.99	49.8
Sunday, July 03, 2016 20:50:45	0.990	153.94	50.4
Sunday, July 03, 2016 20:55:46	0.990	158.91	49.8

Sunday, July 03, 2016 21:00:46 0.990	163.86	50.2
Sunday, July 03, 2016 21:05:47 0.990	168.83	50.6
Sunday, July 03, 2016 21:10:47 0.990	173.78	50.1
Sunday, July 03, 2016 21:15:48 0.990	178.74	50.9
Sunday, July 03, 2016 21:20:48 0.990	183.70	49.8
Sunday, July 03, 2016 21:25:48 0.990	188.65	50.5
Sunday, July 03, 2016 21:30:49 0.990	193.62	50.1
Sunday, July 03, 2016 21:35:49 0.990	198.57	50.6
Sunday, July 03, 2016 21:40:50 0.990	203.53	50.9
Sunday, July 03, 2016 21:45:50 0.990	208.49	50.5
Sunday, July 03, 2016 21:50:51 0.990	213.45	50.7
Sunday, July 03, 2016 21:55:51 0.990	218.40	50.7
Sunday, July 03, 2016 22:00:52 0.990	223.37	50.4
Sunday, July 03, 2016 22:05:52 0.990	228.32	51.0
Sunday, July 03, 2016 22:10:53 0.990	233.29	50.0
Sunday, July 03, 2016 22:15:53 0.990	238.24	50.6
Sunday, July 03, 2016 22:20:53 0.990	243.19	50.5
Sunday, July 03, 2016 22:25:54 0.990	248.16	50.5
Sunday, July 03, 2016 22:30:54 0.990	253.11	50.4
Sunday, July 03, 2016 22:35:55 0.990	258.08	50.6
Sunday, July 03, 2016 22:40:55 0.990	263.03	50.7
Sunday, July 03, 2016 22:45:56 0.990	268.00	50.7
Sunday, July 03, 2016 22:50:56 0.990	272.95	50.6
Sunday, July 03, 2016 22:55:57 0.990	277.92	49.7
Sunday, July 03, 2016 23:00:57 0.990	282.87	50.1
Sunday, July 03, 2016 23:05:58 0.990	287.84	50.9
Sunday, July 03, 2016 23:10:58 0.990	292.79	50.8
Sunday, July 03, 2016 23:15:58 0.990	297.74	50.5
Sunday, July 03, 2016 23:20:59 0.990	302.71	50.4
Sunday, July 03, 2016 23:25:59 0.990	307.66	50.8
Sunday, July 03, 2016 23:31:00 0.990	312.63	50.6
Sunday, July 03, 2016 23:36:00 0.990	317.58	50.5
Sunday, July 03, 2016 23:41:01 0.990	322.55	50.6
Sunday, July 03, 2016 23:46:01 0.990	327.50	49.9
Sunday, July 03, 2016 23:51:02 0.990	332.46	50.4
Sunday, July 03, 2016 23:56:02 0.990	337.42	50.7
Monday, July 04, 2016 0:01:02 0.990	342.37	51.1
Monday, July 04, 2016 0:06:03 0.990	347.33	50.2
Monday, July 04, 2016 0:11:03 0.990	352.29	50.5
Monday, July 04, 2016 0:16:04 0.990	357.25	50.8
Monday, July 04, 2016 0:21:04 0.990	362.20	50.2
Monday, July 04, 2016 0:26:05 0.990	367.17	50.5
Monday, July 04, 2016 0:31:05 0.990	372.12	50.1
Monday, July 04, 2016 0:36:06 0.990	377.09	50.1
Monday, July 04, 2016 0:41:06 0.990	382.04	50.1
Monday, July 04, 2016 0:46:06 0.990	386.99	50.5
Monday, July 04, 2016 0:51:07 0.990	391.96	50.5
Monday, July 04, 2016 0:56:07 0.990	396.91	50.2
Monday, July 04, 2016 1:01:08 0.990	401.88	50.5
Monday, July 04, 2016 1:06:08 0.990	406.83	50.4
Monday, July 04, 2016 1:11:09 0.990	411.80	50.5
Monday, July 04, 2016 1:16:09 0.990	416.75	50.5
Monday, July 04, 2016 1:21:10 0.990	421.72	50.8
Monday, July 04, 2016 1:26:10 0.990	426.67	50.4

Monday, July 04, 2016 1:31:11 0.990	431.64	50.5
Monday, July 04, 2016 1:36:11 0.990	436.59	50.8
Monday, July 04, 2016 1:41:11 0.990	441.54	50.1
Monday, July 04, 2016 1:46:12 0.990	446.51	50.2
Monday, July 04, 2016 1:51:12 0.990	451.46	49.8
Monday, July 04, 2016 1:56:13 0.990	456.43	50.6
Monday, July 04, 2016 2:01:13 0.990	461.38	50.7
Monday, July 04, 2016 2:06:14 0.990	466.34	50.1
Monday, July 04, 2016 2:11:14 0.990	471.30	50.8
Monday, July 04, 2016 2:16:15 0.990	476.26	50.8
Monday, July 04, 2016 2:21:15 0.990	481.21	49.4
Monday, July 04, 2016 2:26:15 0.990	486.17	50.1
Monday, July 04, 2016 2:31:16 0.990	491.13	50.5
Monday, July 04, 2016 2:36:16 0.990	496.08	49.8
Monday, July 04, 2016 2:41:17 0.990	501.05	50.2
Monday, July 04, 2016 2:46:17 0.990	506.00	49.7
Monday, July 04, 2016 2:51:18 0.990	510.97	50.6
Monday, July 04, 2016 2:56:18 0.990	515.92	50.4
Monday, July 04, 2016 3:01:19 0.990	520.89	50.3
Monday, July 04, 2016 3:06:19 0.990	525.84	50.4
Monday, July 04, 2016 3:11:19 0.990	530.80	50.2
Monday, July 04, 2016 3:16:20 0.990	535.76	50.7
Monday, July 04, 2016 3:21:20 0.990	540.72	50.5
Monday, July 04, 2016 3:26:21 0.990	545.68	49.8
Monday, July 04, 2016 3:31:21 0.990	550.64	50.8
Monday, July 04, 2016 3:36:22 0.990	555.60	50.5
Monday, July 04, 2016 3:41:22 0.990	560.56	50.6
Monday, July 04, 2016 3:46:23 0.990	565.52	50.6
Monday, July 04, 2016 3:51:23 0.990	570.48	50.4
Monday, July 04, 2016 3:56:24 0.990	575.44	49.3
Monday, July 04, 2016 4:01:24 0.990	580.40	49.8
Monday, July 04, 2016 4:06:24 0.990	585.35	50.4
Monday, July 04, 2016 4:11:25 0.990	590.32	50.8
Monday, July 04, 2016 4:16:25 0.990	595.27	50.5
Monday, July 04, 2016 4:21:26 0.990	600.24	49.8
Monday, July 04, 2016 4:26:26 0.990	605.19	50.9
Monday, July 04, 2016 4:31:27 0.990	610.16	50.7
Monday, July 04, 2016 4:36:27 0.990	615.11	50.5
Monday, July 04, 2016 4:41:28 0.990	620.08	50.4
Monday, July 04, 2016 4:46:28 0.990	625.03	50.6
Monday, July 04, 2016 4:51:28 0.990	629.98	50.6
Monday, July 04, 2016 4:56:29 0.990	634.95	50.0
Monday, July 04, 2016 5:01:29 0.990	639.90	50.5
Monday, July 04, 2016 5:06:30 0.990	644.87	50.5
Monday, July 04, 2016 5:11:30 0.990	649.82	50.5
Monday, July 04, 2016 5:16:31 0.990	654.79	50.5
Monday, July 04, 2016 5:21:31 0.990	659.74	50.2
Monday, July 04, 2016 5:26:32 0.990	664.71	50.1
Monday, July 04, 2016 5:31:32 0.990	669.66	50.6
Monday, July 04, 2016 5:36:32 0.990	674.61	50.5
Monday, July 04, 2016 5:41:33 0.990	679.58	50.5
Monday, July 04, 2016 5:46:33 0.990	684.53	50.9
Monday, July 04, 2016 5:51:34 0.990	689.50	50.6
Monday, July 04, 2016 5:56:34 0.990	694.45	49.7

Monday, July 04, 2016 6:01:35	0.990	699.42	50.8
Monday, July 04, 2016 6:06:35	0.990	704.37	50.5
Monday, July 04, 2016 6:11:35	0.990	709.33	49.7
Monday, July 04, 2016 6:15:05	0.990	712.79	50.1

aqms5

formaldehyde001

Ch. 1 Cartridge Started Saturday, July 09, 2016 6:00:01

Flow Rate Set Point 1.00 l/min

Stopped Saturday, July 09, 2016 18:00:21

Total Volume 713.02 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.003 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Saturday, July 09, 2016 6:00:28	0.077	0.23	50.1
Saturday, July 09, 2016 6:05:28	0.991	5.18	50.3
Saturday, July 09, 2016 6:10:29	0.990	10.15	50.0
Saturday, July 09, 2016 6:15:29	0.990	15.10	50.6
Saturday, July 09, 2016 6:20:30	0.990	20.07	50.1
Saturday, July 09, 2016 6:25:30	0.990	25.02	49.8
Saturday, July 09, 2016 6:30:31	0.990	29.99	50.9
Saturday, July 09, 2016 6:35:31	0.990	34.94	49.9
Saturday, July 09, 2016 6:40:32	0.991	39.91	50.1
Saturday, July 09, 2016 6:45:32	0.991	44.87	50.7
Saturday, July 09, 2016 6:50:33	0.991	49.84	50.0
Saturday, July 09, 2016 6:55:33	0.991	54.79	50.0
Saturday, July 09, 2016 7:00:34	0.991	59.76	50.6
Saturday, July 09, 2016 7:05:34	0.991	64.71	51.0
Saturday, July 09, 2016 7:10:35	0.991	69.68	51.0
Saturday, July 09, 2016 7:15:35	0.991	74.63	50.4
Saturday, July 09, 2016 7:20:36	0.991	79.60	50.8
Saturday, July 09, 2016 7:25:36	0.991	84.55	49.8
Saturday, July 09, 2016 7:30:37	0.991	89.52	50.5
Saturday, July 09, 2016 7:35:37	0.991	94.48	50.8
Saturday, July 09, 2016 7:40:38	0.991	99.45	50.4
Saturday, July 09, 2016 7:45:38	0.991	104.40	50.2
Saturday, July 09, 2016 7:50:39	0.991	109.37	50.5
Saturday, July 09, 2016 7:55:39	0.991	114.32	50.7
Saturday, July 09, 2016 8:00:40	0.991	119.29	50.6
Saturday, July 09, 2016 8:05:40	0.991	124.25	50.1
Saturday, July 09, 2016 8:10:41	0.991	129.21	50.2
Saturday, July 09, 2016 8:15:41	0.991	134.17	50.2
Saturday, July 09, 2016 8:20:42	0.991	139.14	50.4
Saturday, July 09, 2016 8:25:42	0.991	144.09	50.4
Saturday, July 09, 2016 8:30:43	0.991	149.06	50.4
Saturday, July 09, 2016 8:35:43	0.991	154.01	50.8
Saturday, July 09, 2016 8:40:44	0.991	158.98	50.5

Saturday, July 09, 2016 8:45:44 0.991	163.94	49.5
Saturday, July 09, 2016 8:50:45 0.991	168.91	50.5
Saturday, July 09, 2016 8:55:45 0.991	173.86	50.4
Saturday, July 09, 2016 9:00:46 0.991	178.83	50.5
Saturday, July 09, 2016 9:05:46 0.991	183.78	50.5
Saturday, July 09, 2016 9:10:47 0.991	188.75	50.8
Saturday, July 09, 2016 9:15:47 0.991	193.71	49.8
Saturday, July 09, 2016 9:20:48 0.991	198.68	50.8
Saturday, July 09, 2016 9:25:48 0.991	203.63	50.7
Saturday, July 09, 2016 9:30:49 0.991	208.60	51.0
Saturday, July 09, 2016 9:35:49 0.991	213.55	50.3
Saturday, July 09, 2016 9:40:50 0.991	218.52	50.1
Saturday, July 09, 2016 9:45:50 0.991	223.47	50.6
Saturday, July 09, 2016 9:50:51 0.991	228.44	50.9
Saturday, July 09, 2016 9:55:52 0.991	233.41	50.9
Saturday, July 09, 2016 10:00:52 0.991	238.37	50.5
Saturday, July 09, 2016 10:05:53 0.991	243.34	50.5
Saturday, July 09, 2016 10:10:53 0.991	248.29	50.4
Saturday, July 09, 2016 10:15:54 0.991	253.26	49.9
Saturday, July 09, 2016 10:20:54 0.991	258.21	50.1
Saturday, July 09, 2016 10:25:55 0.991	263.18	50.6
Saturday, July 09, 2016 10:30:55 0.991	268.14	50.4
Saturday, July 09, 2016 10:35:56 0.991	273.11	50.4
Saturday, July 09, 2016 10:40:56 0.991	278.06	50.9
Saturday, July 09, 2016 10:45:57 0.991	283.03	50.0
Saturday, July 09, 2016 10:50:57 0.991	287.98	50.4
Saturday, July 09, 2016 10:55:58 0.991	292.95	50.1
Saturday, July 09, 2016 11:00:58 0.991	297.90	50.8
Saturday, July 09, 2016 11:05:59 0.991	302.87	50.8
Saturday, July 09, 2016 11:10:59 0.991	307.83	50.1
Saturday, July 09, 2016 11:16:00 0.991	312.80	50.6
Saturday, July 09, 2016 11:21:00 0.991	317.75	51.2
Saturday, July 09, 2016 11:26:01 0.991	322.72	50.8
Saturday, July 09, 2016 11:31:01 0.991	327.67	50.1
Saturday, July 09, 2016 11:36:02 0.991	332.64	50.6
Saturday, July 09, 2016 11:41:02 0.991	337.60	50.1
Saturday, July 09, 2016 11:46:03 0.991	342.57	50.6
Saturday, July 09, 2016 11:51:03 0.991	347.52	50.3
Saturday, July 09, 2016 11:56:04 0.991	352.49	50.8
Saturday, July 09, 2016 12:01:04 0.991	357.44	49.7
Saturday, July 09, 2016 12:06:05 0.991	362.41	50.2
Saturday, July 09, 2016 12:11:05 0.991	367.36	50.4
Saturday, July 09, 2016 12:16:06 0.991	372.33	50.5
Saturday, July 09, 2016 12:21:06 0.991	377.29	50.2
Saturday, July 09, 2016 12:26:07 0.991	382.26	50.1
Saturday, July 09, 2016 12:31:08 0.991	387.23	50.0
Saturday, July 09, 2016 12:36:08 0.991	392.18	49.4
Saturday, July 09, 2016 12:41:09 0.991	397.15	50.8
Saturday, July 09, 2016 12:46:09 0.991	402.10	49.5
Saturday, July 09, 2016 12:51:10 0.991	407.07	50.2
Saturday, July 09, 2016 12:56:10 0.991	412.03	50.1
Saturday, July 09, 2016 13:01:11 0.991	417.00	50.5
Saturday, July 09, 2016 13:06:11 0.991	421.95	50.1
Saturday, July 09, 2016 13:11:12 0.991	426.92	50.1

Saturday, July 09, 2016 13:16:12 0.991	431.87	50.1
Saturday, July 09, 2016 13:21:13 0.991	436.84	49.9
Saturday, July 09, 2016 13:26:13 0.991	441.80	50.1
Saturday, July 09, 2016 13:31:14 0.991	446.77	49.8
Saturday, July 09, 2016 13:36:14 0.991	451.72	50.1
Saturday, July 09, 2016 13:41:15 0.991	456.69	50.5
Saturday, July 09, 2016 13:46:15 0.991	461.64	50.7
Saturday, July 09, 2016 13:51:16 0.991	466.61	50.2
Saturday, July 09, 2016 13:56:16 0.991	471.57	50.4
Saturday, July 09, 2016 14:01:17 0.991	476.54	50.1
Saturday, July 09, 2016 14:06:17 0.991	481.49	49.9
Saturday, July 09, 2016 14:11:18 0.991	486.46	50.1
Saturday, July 09, 2016 14:16:18 0.991	491.41	50.8
Saturday, July 09, 2016 14:21:19 0.991	496.38	50.2
Saturday, July 09, 2016 14:26:19 0.991	501.34	50.4
Saturday, July 09, 2016 14:31:20 0.991	506.31	51.0
Saturday, July 09, 2016 14:36:20 0.991	511.26	50.9
Saturday, July 09, 2016 14:41:21 0.991	516.23	50.1
Saturday, July 09, 2016 14:46:21 0.991	521.18	50.8
Saturday, July 09, 2016 14:51:22 0.991	526.15	50.9
Saturday, July 09, 2016 14:56:22 0.991	531.10	49.7
Saturday, July 09, 2016 15:01:23 0.991	536.07	50.7
Saturday, July 09, 2016 15:06:23 0.991	541.03	50.6
Saturday, July 09, 2016 15:11:24 0.991	546.00	50.7
Saturday, July 09, 2016 15:16:24 0.991	550.95	50.8
Saturday, July 09, 2016 15:21:25 0.991	555.92	50.1
Saturday, July 09, 2016 15:26:25 0.991	560.87	50.4
Saturday, July 09, 2016 15:31:26 0.991	565.84	49.7
Saturday, July 09, 2016 15:36:26 0.991	570.80	50.6
Saturday, July 09, 2016 15:41:27 0.991	575.76	50.8
Saturday, July 09, 2016 15:46:27 0.991	580.72	50.5
Saturday, July 09, 2016 15:51:28 0.991	585.69	50.3
Saturday, July 09, 2016 15:56:28 0.991	590.64	50.3
Saturday, July 09, 2016 16:01:29 0.991	595.61	50.6
Saturday, July 09, 2016 16:06:30 0.991	600.58	50.1
Saturday, July 09, 2016 16:11:30 0.991	605.53	50.3
Saturday, July 09, 2016 16:16:31 0.991	610.50	50.2
Saturday, July 09, 2016 16:21:31 0.991	615.46	50.1
Saturday, July 09, 2016 16:26:32 0.991	620.43	50.8
Saturday, July 09, 2016 16:31:32 0.991	625.38	50.6
Saturday, July 09, 2016 16:36:33 0.991	630.35	50.5
Saturday, July 09, 2016 16:41:33 0.991	635.30	50.0
Saturday, July 09, 2016 16:46:34 0.991	640.27	50.7
Saturday, July 09, 2016 16:51:34 0.991	645.22	50.0
Saturday, July 09, 2016 16:56:35 0.991	650.19	50.3
Saturday, July 09, 2016 17:01:35 0.991	655.15	50.5
Saturday, July 09, 2016 17:06:36 0.991	660.12	50.7
Saturday, July 09, 2016 17:11:36 0.991	665.07	50.1
Saturday, July 09, 2016 17:16:37 0.991	670.04	50.4
Saturday, July 09, 2016 17:21:37 0.991	674.99	50.5
Saturday, July 09, 2016 17:26:38 0.991	679.96	50.6
Saturday, July 09, 2016 17:31:38 0.991	684.91	49.9
Saturday, July 09, 2016 17:36:39 0.991	689.88	50.5
Saturday, July 09, 2016 17:41:39 0.991	694.84	50.1

Saturday, July 09, 2016 17:46:40 0.991	699.81	50.6
Saturday, July 09, 2016 17:51:41 0.991	704.78	50.5
Saturday, July 09, 2016 17:56:41 0.991	709.73	50.6
Saturday, July 09, 2016 18:00:00 0.991	713.01	50.9

aqms5

formaldehyde002

Ch. 2 Cartridge Started Saturday, July 09, 2016 18:15:02

Flow Rate Set Point 1.00 l/min

Stopped Sunday, July 10, 2016 6:15:25

Total Volume 712.83 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.001 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Saturday, July 09, 2016 18:15:29	0.080	0.22	50.9
Saturday, July 09, 2016 18:20:30	0.990	5.19	50.6
Saturday, July 09, 2016 18:25:30	0.990	10.14	50.9
Saturday, July 09, 2016 18:30:31	0.990	15.11	50.5
Saturday, July 09, 2016 18:35:31	0.990	20.06	50.8
Saturday, July 09, 2016 18:40:32	0.990	25.03	50.1
Saturday, July 09, 2016 18:45:32	0.990	29.98	49.9
Saturday, July 09, 2016 18:50:33	0.990	34.95	50.1
Saturday, July 09, 2016 18:55:33	0.990	39.90	50.4
Saturday, July 09, 2016 19:00:34	0.990	44.87	50.2
Saturday, July 09, 2016 19:05:34	0.990	49.82	50.6
Saturday, July 09, 2016 19:10:35	0.990	54.79	50.7
Saturday, July 09, 2016 19:15:35	0.990	59.74	50.9
Saturday, July 09, 2016 19:20:36	0.990	64.71	50.2
Saturday, July 09, 2016 19:25:36	0.990	69.66	50.5
Saturday, July 09, 2016 19:30:37	0.990	74.63	50.5
Saturday, July 09, 2016 19:35:37	0.990	79.58	50.2
Saturday, July 09, 2016 19:40:38	0.990	84.55	50.6
Saturday, July 09, 2016 19:45:38	0.990	89.50	50.1
Saturday, July 09, 2016 19:50:39	0.990	94.46	50.2
Saturday, July 09, 2016 19:55:39	0.990	99.42	49.9
Saturday, July 09, 2016 20:00:40	0.990	104.38	50.8
Saturday, July 09, 2016 20:05:40	0.990	109.33	50.2
Saturday, July 09, 2016 20:10:41	0.990	114.30	50.9
Saturday, July 09, 2016 20:15:41	0.990	119.25	50.5
Saturday, July 09, 2016 20:20:42	0.990	124.22	50.3
Saturday, July 09, 2016 20:25:42	0.990	129.17	50.4
Saturday, July 09, 2016 20:30:43	0.990	134.14	50.1
Saturday, July 09, 2016 20:35:43	0.990	139.09	50.7
Saturday, July 09, 2016 20:40:44	0.990	144.06	50.5
Saturday, July 09, 2016 20:45:44	0.990	149.01	50.5
Saturday, July 09, 2016 20:50:45	0.990	153.98	50.6
Saturday, July 09, 2016 20:55:45	0.990	158.93	50.4

Saturday, July 09, 2016 21:00:46 0.990	163.90	50.4
Saturday, July 09, 2016 21:05:46 0.990	168.85	50.6
Saturday, July 09, 2016 21:10:47 0.990	173.82	50.8
Saturday, July 09, 2016 21:15:47 0.990	178.77	50.2
Saturday, July 09, 2016 21:20:48 0.990	183.74	50.5
Saturday, July 09, 2016 21:25:48 0.990	188.69	51.0
Saturday, July 09, 2016 21:30:49 0.990	193.66	51.1
Saturday, July 09, 2016 21:35:49 0.990	198.61	51.0
Saturday, July 09, 2016 21:40:50 0.990	203.58	49.5
Saturday, July 09, 2016 21:45:50 0.990	208.53	50.9
Saturday, July 09, 2016 21:50:51 0.990	213.50	50.2
Saturday, July 09, 2016 21:55:51 0.990	218.45	51.1
Saturday, July 09, 2016 22:00:52 0.990	223.42	49.9
Saturday, July 09, 2016 22:05:52 0.990	228.37	51.3
Saturday, July 09, 2016 22:10:53 0.990	233.33	50.4
Saturday, July 09, 2016 22:15:53 0.990	238.29	50.9
Saturday, July 09, 2016 22:20:54 0.990	243.25	49.7
Saturday, July 09, 2016 22:25:54 0.990	248.21	49.7
Saturday, July 09, 2016 22:30:55 0.990	253.17	50.9
Saturday, July 09, 2016 22:35:55 0.990	258.12	49.8
Saturday, July 09, 2016 22:40:56 0.990	263.09	50.1
Saturday, July 09, 2016 22:45:56 0.990	268.04	50.0
Saturday, July 09, 2016 22:50:57 0.990	273.01	51.0
Saturday, July 09, 2016 22:55:57 0.990	277.96	49.8
Saturday, July 09, 2016 23:00:58 0.990	282.93	50.2
Saturday, July 09, 2016 23:05:58 0.990	287.88	50.9
Saturday, July 09, 2016 23:10:59 0.990	292.85	50.5
Saturday, July 09, 2016 23:15:59 0.990	297.80	50.5
Saturday, July 09, 2016 23:21:00 0.990	302.77	50.2
Saturday, July 09, 2016 23:26:00 0.990	307.72	50.5
Saturday, July 09, 2016 23:31:01 0.990	312.69	50.7
Saturday, July 09, 2016 23:36:01 0.990	317.64	50.6
Saturday, July 09, 2016 23:41:02 0.990	322.61	50.5
Saturday, July 09, 2016 23:46:02 0.990	327.56	50.5
Saturday, July 09, 2016 23:51:03 0.990	332.53	50.8
Saturday, July 09, 2016 23:56:03 0.990	337.48	50.6
Sunday, July 10, 2016 0:01:04 0.990	342.44	50.9
Sunday, July 10, 2016 0:06:04 0.990	347.40	50.4
Sunday, July 10, 2016 0:11:05 0.990	352.36	50.4
Sunday, July 10, 2016 0:16:05 0.990	357.31	50.7
Sunday, July 10, 2016 0:21:06 0.990	362.28	51.0
Sunday, July 10, 2016 0:26:06 0.990	367.23	50.5
Sunday, July 10, 2016 0:31:07 0.990	372.20	50.6
Sunday, July 10, 2016 0:36:07 0.990	377.15	50.1
Sunday, July 10, 2016 0:41:08 0.990	382.12	50.6
Sunday, July 10, 2016 0:46:08 0.990	387.07	50.6
Sunday, July 10, 2016 0:51:09 0.990	392.04	51.0
Sunday, July 10, 2016 0:56:09 0.990	396.99	50.4
Sunday, July 10, 2016 1:01:10 0.990	401.96	50.0
Sunday, July 10, 2016 1:06:10 0.990	406.91	49.7
Sunday, July 10, 2016 1:11:11 0.990	411.88	50.9
Sunday, July 10, 2016 1:16:11 0.990	416.83	50.1
Sunday, July 10, 2016 1:21:12 0.990	421.80	50.0
Sunday, July 10, 2016 1:26:12 0.990	426.75	50.4

Sunday, July 10, 2016 1:31:12 0.990	431.70	50.4
Sunday, July 10, 2016 1:36:13 0.990	436.67	50.7
Sunday, July 10, 2016 1:41:13 0.990	441.62	50.0
Sunday, July 10, 2016 1:46:14 0.990	446.59	50.7
Sunday, July 10, 2016 1:51:14 0.990	451.54	50.4
Sunday, July 10, 2016 1:56:15 0.990	456.51	50.2
Sunday, July 10, 2016 2:01:15 0.990	461.46	50.5
Sunday, July 10, 2016 2:06:16 0.990	466.42	50.2
Sunday, July 10, 2016 2:11:16 0.990	471.38	50.5
Sunday, July 10, 2016 2:16:17 0.990	476.34	50.6
Sunday, July 10, 2016 2:21:17 0.990	481.29	50.1
Sunday, July 10, 2016 2:26:18 0.990	486.26	50.7
Sunday, July 10, 2016 2:31:18 0.990	491.21	50.3
Sunday, July 10, 2016 2:36:19 0.990	496.18	50.5
Sunday, July 10, 2016 2:41:19 0.990	501.13	50.2
Sunday, July 10, 2016 2:46:20 0.990	506.10	50.5
Sunday, July 10, 2016 2:51:20 0.990	511.05	50.6
Sunday, July 10, 2016 2:56:21 0.990	516.02	50.2
Sunday, July 10, 2016 3:01:21 0.990	520.97	50.6
Sunday, July 10, 2016 3:06:22 0.990	525.94	50.2
Sunday, July 10, 2016 3:11:22 0.990	530.89	50.2
Sunday, July 10, 2016 3:16:23 0.990	535.86	49.3
Sunday, July 10, 2016 3:21:23 0.990	540.81	50.2
Sunday, July 10, 2016 3:26:24 0.990	545.78	50.8
Sunday, July 10, 2016 3:31:24 0.990	550.73	49.9
Sunday, July 10, 2016 3:36:25 0.990	555.70	50.7
Sunday, July 10, 2016 3:41:25 0.990	560.65	50.1
Sunday, July 10, 2016 3:46:26 0.990	565.62	50.5
Sunday, July 10, 2016 3:51:26 0.990	570.57	51.0
Sunday, July 10, 2016 3:56:27 0.990	575.54	50.5
Sunday, July 10, 2016 4:01:27 0.990	580.49	50.5
Sunday, July 10, 2016 4:06:28 0.990	585.46	50.2
Sunday, July 10, 2016 4:11:28 0.990	590.41	50.3
Sunday, July 10, 2016 4:16:29 0.990	595.38	50.1
Sunday, July 10, 2016 4:21:29 0.990	600.33	50.5
Sunday, July 10, 2016 4:26:30 0.990	605.30	50.8
Sunday, July 10, 2016 4:31:30 0.990	610.25	50.2
Sunday, July 10, 2016 4:36:31 0.990	615.22	50.6
Sunday, July 10, 2016 4:41:31 0.990	620.17	51.1
Sunday, July 10, 2016 4:46:32 0.990	625.14	50.5
Sunday, July 10, 2016 4:51:32 0.990	630.09	50.6
Sunday, July 10, 2016 4:56:32 0.990	635.05	50.2
Sunday, July 10, 2016 5:01:33 0.990	640.01	50.6
Sunday, July 10, 2016 5:06:33 0.990	644.97	50.9
Sunday, July 10, 2016 5:11:34 0.990	649.94	49.6
Sunday, July 10, 2016 5:16:34 0.990	654.89	50.8
Sunday, July 10, 2016 5:21:35 0.990	659.86	50.6
Sunday, July 10, 2016 5:26:35 0.990	664.81	50.5
Sunday, July 10, 2016 5:31:36 0.990	669.78	50.4
Sunday, July 10, 2016 5:36:36 0.990	674.73	50.6
Sunday, July 10, 2016 5:41:37 0.990	679.70	49.9
Sunday, July 10, 2016 5:46:37 0.990	684.65	50.8
Sunday, July 10, 2016 5:51:38 0.990	689.62	50.1
Sunday, July 10, 2016 5:56:38 0.990	694.57	50.2

Sunday, July 10, 2016 6:01:39 0.990	699.54	50.2
Sunday, July 10, 2016 6:06:39 0.990	704.49	51.1
Sunday, July 10, 2016 6:11:40 0.990	709.46	50.4
Sunday, July 10, 2016 6:15:04 0.990	712.82	51.0

aqms5

formaldehyde001

Ch. 1 Cartridge Started Friday, July 15, 2016 6:00:01

Flow Rate Set Point 1.00 l/min

Stopped Friday, July 15, 2016 18:00:24

Total Volume 713.06 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.003 l/min

Ending Leak Rate -0.007 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Friday, July 15, 2016 6:00:28	0.077	0.23	49.8
Friday, July 15, 2016 6:05:28	0.991	5.18	49.9
Friday, July 15, 2016 6:10:29	0.991	10.15	50.1
Friday, July 15, 2016 6:15:29	0.990	15.10	49.6
Friday, July 15, 2016 6:20:30	0.990	20.07	50.2
Friday, July 15, 2016 6:25:30	0.991	25.02	50.5
Friday, July 15, 2016 6:30:31	0.990	29.99	50.5
Friday, July 15, 2016 6:35:31	0.991	34.94	50.5
Friday, July 15, 2016 6:40:32	0.991	39.91	50.4
Friday, July 15, 2016 6:45:33	0.991	44.88	50.8
Friday, July 15, 2016 6:50:33	0.991	49.83	50.5
Friday, July 15, 2016 6:55:34	0.991	54.80	51.0
Friday, July 15, 2016 7:00:34	0.991	59.76	50.2
Friday, July 15, 2016 7:05:35	0.991	64.73	50.1
Friday, July 15, 2016 7:10:35	0.991	69.68	50.4
Friday, July 15, 2016 7:15:36	0.991	74.65	49.8
Friday, July 15, 2016 7:20:36	0.991	79.60	50.6
Friday, July 15, 2016 7:25:37	0.991	84.57	50.2
Friday, July 15, 2016 7:30:37	0.991	89.52	50.5
Friday, July 15, 2016 7:35:38	0.991	94.49	50.4
Friday, July 15, 2016 7:40:38	0.991	99.45	50.8
Friday, July 15, 2016 7:45:39	0.991	104.42	50.7
Friday, July 15, 2016 7:50:39	0.991	109.37	50.1
Friday, July 15, 2016 7:55:40	0.991	114.34	50.4
Friday, July 15, 2016 8:00:40	0.991	119.29	50.5
Friday, July 15, 2016 8:05:41	0.991	124.26	50.6
Friday, July 15, 2016 8:10:41	0.991	129.22	50.1
Friday, July 15, 2016 8:15:42	0.991	134.19	50.2
Friday, July 15, 2016 8:20:42	0.991	139.14	50.8
Friday, July 15, 2016 8:25:43	0.991	144.11	50.9
Friday, July 15, 2016 8:30:43	0.991	149.06	50.1
Friday, July 15, 2016 8:35:44	0.991	154.03	49.7
Friday, July 15, 2016 8:40:45	0.991	159.00	50.0

Friday, July 15, 2016 8:45:45 0.991	163.95	50.3
Friday, July 15, 2016 8:50:46 0.991	168.92	50.4
Friday, July 15, 2016 8:55:46 0.991	173.88	50.1
Friday, July 15, 2016 9:00:47 0.991	178.85	50.5
Friday, July 15, 2016 9:05:47 0.991	183.80	50.5
Friday, July 15, 2016 9:10:48 0.991	188.77	50.5
Friday, July 15, 2016 9:15:48 0.991	193.72	50.2
Friday, July 15, 2016 9:20:49 0.991	198.69	50.7
Friday, July 15, 2016 9:25:49 0.991	203.65	51.0
Friday, July 15, 2016 9:30:50 0.991	208.62	50.5
Friday, July 15, 2016 9:35:50 0.991	213.57	50.2
Friday, July 15, 2016 9:40:51 0.991	218.54	50.8
Friday, July 15, 2016 9:45:51 0.991	223.49	50.9
Friday, July 15, 2016 9:50:52 0.991	228.46	50.7
Friday, July 15, 2016 9:55:53 0.991	233.43	50.1
Friday, July 15, 2016 10:00:53 0.991	238.39	50.5
Friday, July 15, 2016 10:05:54 0.991	243.36	50.9
Friday, July 15, 2016 10:10:54 0.991	248.31	49.8
Friday, July 15, 2016 10:15:55 0.991	253.28	50.5
Friday, July 15, 2016 10:20:55 0.991	258.23	50.3
Friday, July 15, 2016 10:25:56 0.991	263.20	50.1
Friday, July 15, 2016 10:30:56 0.991	268.15	50.4
Friday, July 15, 2016 10:35:57 0.991	273.12	50.7
Friday, July 15, 2016 10:40:57 0.991	278.08	50.5
Friday, July 15, 2016 10:45:58 0.991	283.05	50.9
Friday, July 15, 2016 10:50:58 0.991	288.00	50.8
Friday, July 15, 2016 10:55:59 0.991	292.97	50.1
Friday, July 15, 2016 11:00:59 0.991	297.92	49.5
Friday, July 15, 2016 11:06:00 0.991	302.89	50.5
Friday, July 15, 2016 11:11:00 0.991	307.85	50.8
Friday, July 15, 2016 11:16:01 0.991	312.82	49.7
Friday, July 15, 2016 11:21:02 0.991	317.79	50.4
Friday, July 15, 2016 11:26:02 0.991	322.74	50.2
Friday, July 15, 2016 11:31:03 0.991	327.71	50.0
Friday, July 15, 2016 11:36:03 0.991	332.66	50.5
Friday, July 15, 2016 11:41:04 0.991	337.63	50.8
Friday, July 15, 2016 11:46:04 0.991	342.59	50.1
Friday, July 15, 2016 11:51:05 0.991	347.56	50.2
Friday, July 15, 2016 11:56:05 0.991	352.51	50.0
Friday, July 15, 2016 12:01:06 0.991	357.48	50.2
Friday, July 15, 2016 12:06:06 0.991	362.43	50.6
Friday, July 15, 2016 12:11:07 0.991	367.40	50.6
Friday, July 15, 2016 12:16:07 0.991	372.36	49.8
Friday, July 15, 2016 12:21:08 0.991	377.33	49.7
Friday, July 15, 2016 12:26:09 0.991	382.30	49.9
Friday, July 15, 2016 12:31:09 0.991	387.25	50.0
Friday, July 15, 2016 12:36:10 0.991	392.22	50.6
Friday, July 15, 2016 12:41:10 0.991	397.17	50.5
Friday, July 15, 2016 12:46:11 0.991	402.14	50.6
Friday, July 15, 2016 12:51:11 0.991	407.10	50.5
Friday, July 15, 2016 12:56:12 0.991	412.07	50.3
Friday, July 15, 2016 13:01:12 0.991	417.02	50.5
Friday, July 15, 2016 13:06:13 0.991	421.99	50.5
Friday, July 15, 2016 13:11:13 0.991	426.94	50.4

Friday, July 15, 2016 13:16:14 0.991	431.91	50.9
Friday, July 15, 2016 13:21:14 0.991	436.87	50.6
Friday, July 15, 2016 13:26:15 0.991	441.84	50.8
Friday, July 15, 2016 13:31:16 0.991	446.80	50.4
Friday, July 15, 2016 13:36:16 0.991	451.76	50.4
Friday, July 15, 2016 13:41:17 0.991	456.73	49.8
Friday, July 15, 2016 13:46:17 0.991	461.68	50.9
Friday, July 15, 2016 13:51:18 0.991	466.65	50.4
Friday, July 15, 2016 13:56:18 0.991	471.60	50.9
Friday, July 15, 2016 14:01:19 0.991	476.57	50.6
Friday, July 15, 2016 14:06:19 0.991	481.53	49.9
Friday, July 15, 2016 14:11:20 0.991	486.50	50.2
Friday, July 15, 2016 14:16:20 0.991	491.45	50.2
Friday, July 15, 2016 14:21:21 0.991	496.42	50.2
Friday, July 15, 2016 14:26:21 0.991	501.37	50.1
Friday, July 15, 2016 14:31:22 0.991	506.34	51.1
Friday, July 15, 2016 14:36:22 0.991	511.30	50.2
Friday, July 15, 2016 14:41:23 0.991	516.27	50.4
Friday, July 15, 2016 14:46:23 0.991	521.22	50.4
Friday, July 15, 2016 14:51:24 0.991	526.19	51.1
Friday, July 15, 2016 14:56:25 0.991	531.16	50.9
Friday, July 15, 2016 15:01:25 0.991	536.11	50.4
Friday, July 15, 2016 15:06:26 0.991	541.08	50.9
Friday, July 15, 2016 15:11:26 0.991	546.04	50.6
Friday, July 15, 2016 15:16:27 0.991	551.00	50.8
Friday, July 15, 2016 15:21:27 0.991	555.96	50.2
Friday, July 15, 2016 15:26:28 0.991	560.93	50.2
Friday, July 15, 2016 15:31:28 0.991	565.88	51.0
Friday, July 15, 2016 15:36:29 0.991	570.85	50.9
Friday, July 15, 2016 15:41:29 0.991	575.80	50.6
Friday, July 15, 2016 15:46:30 0.991	580.77	50.2
Friday, July 15, 2016 15:51:30 0.991	585.73	50.8
Friday, July 15, 2016 15:56:31 0.991	590.70	50.5
Friday, July 15, 2016 16:01:31 0.991	595.65	50.2
Friday, July 15, 2016 16:06:32 0.991	600.62	50.0
Friday, July 15, 2016 16:11:32 0.991	605.57	50.1
Friday, July 15, 2016 16:16:33 0.991	610.54	49.8
Friday, July 15, 2016 16:21:33 0.991	615.50	50.5
Friday, July 15, 2016 16:26:34 0.991	620.46	50.5
Friday, July 15, 2016 16:31:34 0.991	625.42	50.0
Friday, July 15, 2016 16:36:35 0.991	630.39	50.4
Friday, July 15, 2016 16:41:36 0.991	635.36	50.4
Friday, July 15, 2016 16:46:36 0.991	640.31	50.2
Friday, July 15, 2016 16:51:37 0.991	645.28	50.5
Friday, July 15, 2016 16:56:37 0.991	650.23	51.1
Friday, July 15, 2016 17:01:38 0.991	655.20	50.8
Friday, July 15, 2016 17:06:38 0.991	660.16	50.6
Friday, July 15, 2016 17:11:39 0.991	665.13	50.8
Friday, July 15, 2016 17:16:39 0.991	670.08	50.8
Friday, July 15, 2016 17:21:40 0.991	675.05	50.1
Friday, July 15, 2016 17:26:40 0.991	680.00	50.5
Friday, July 15, 2016 17:31:41 0.991	684.97	49.7
Friday, July 15, 2016 17:36:42 0.991	689.94	50.9
Friday, July 15, 2016 17:41:42 0.991	694.89	51.0

Friday, July 15, 2016 17:46:43	0.991	699.86	50.5
Friday, July 15, 2016 17:51:43	0.991	704.82	50.6
Friday, July 15, 2016 17:56:44	0.991	709.79	50.5
Friday, July 15, 2016 18:00:02	0.991	713.06	50.9

aqms5

formaldehyde002

Ch. 2 Cartridge Started Friday, July 15, 2016 18:15:05

Flow Rate Set Point 1.00 l/min

Stopped Saturday, July 16, 2016 6:15:22

Total Volume 712.73 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Friday, July 15, 2016 18:15:32	0.080	0.22	50.3
Friday, July 15, 2016 18:20:32	0.990	5.18	51.0
Friday, July 15, 2016 18:25:33	0.990	10.14	50.7
Friday, July 15, 2016 18:30:33	0.990	15.09	51.0
Friday, July 15, 2016 18:35:34	0.990	20.06	51.0
Friday, July 15, 2016 18:40:34	0.990	25.01	50.3
Friday, July 15, 2016 18:45:35	0.990	29.98	50.9
Friday, July 15, 2016 18:50:35	0.990	34.93	50.6
Friday, July 15, 2016 18:55:36	0.990	39.90	50.8
Friday, July 15, 2016 19:00:36	0.990	44.85	50.4
Friday, July 15, 2016 19:05:37	0.990	49.82	50.5
Friday, July 15, 2016 19:10:37	0.990	54.77	50.5
Friday, July 15, 2016 19:15:38	0.990	59.74	50.5
Friday, July 15, 2016 19:20:38	0.990	64.69	50.5
Friday, July 15, 2016 19:25:39	0.990	69.66	49.8
Friday, July 15, 2016 19:30:39	0.990	74.61	50.9
Friday, July 15, 2016 19:35:40	0.990	79.58	50.2
Friday, July 15, 2016 19:40:41	0.990	84.54	50.1
Friday, July 15, 2016 19:45:41	0.990	89.49	50.6
Friday, July 15, 2016 19:50:42	0.990	94.46	50.5
Friday, July 15, 2016 19:55:42	0.990	99.41	50.8
Friday, July 15, 2016 20:00:43	0.990	104.38	50.5
Friday, July 15, 2016 20:05:43	0.990	109.33	50.6
Friday, July 15, 2016 20:10:44	0.990	114.30	50.2
Friday, July 15, 2016 20:15:44	0.990	119.25	50.8
Friday, July 15, 2016 20:20:45	0.990	124.22	50.8
Friday, July 15, 2016 20:25:45	0.990	129.17	51.1
Friday, July 15, 2016 20:30:46	0.990	134.14	50.1
Friday, July 15, 2016 20:35:46	0.990	139.09	50.8
Friday, July 15, 2016 20:40:47	0.990	144.06	50.6
Friday, July 15, 2016 20:45:47	0.990	149.01	50.1
Friday, July 15, 2016 20:50:48	0.990	153.98	49.7
Friday, July 15, 2016 20:55:48	0.990	158.93	50.8

Friday, July 15, 2016 21:00:49 0.990	163.90	50.5
Friday, July 15, 2016 21:05:49 0.990	168.85	50.5
Friday, July 15, 2016 21:10:50 0.990	173.82	50.0
Friday, July 15, 2016 21:15:50 0.990	178.77	51.0
Friday, July 15, 2016 21:20:51 0.990	183.74	50.3
Friday, July 15, 2016 21:25:51 0.990	188.69	50.8
Friday, July 15, 2016 21:30:52 0.990	193.65	50.7
Friday, July 15, 2016 21:35:53 0.990	198.62	50.9
Friday, July 15, 2016 21:40:53 0.990	203.57	50.5
Friday, July 15, 2016 21:45:54 0.990	208.54	50.4
Friday, July 15, 2016 21:50:54 0.990	213.49	49.6
Friday, July 15, 2016 21:55:55 0.990	218.46	51.0
Friday, July 15, 2016 22:00:55 0.990	223.41	50.5
Friday, July 15, 2016 22:05:56 0.990	228.38	49.9
Friday, July 15, 2016 22:10:56 0.990	233.33	50.0
Friday, July 15, 2016 22:15:57 0.990	238.30	50.1
Friday, July 15, 2016 22:20:57 0.990	243.25	50.2
Friday, July 15, 2016 22:25:58 0.990	248.22	50.5
Friday, July 15, 2016 22:30:59 0.990	253.19	49.8
Friday, July 15, 2016 22:35:59 0.990	258.14	51.1
Friday, July 15, 2016 22:41:00 0.990	263.11	50.2
Friday, July 15, 2016 22:46:00 0.990	268.06	50.9
Friday, July 15, 2016 22:51:01 0.990	273.02	50.5
Friday, July 15, 2016 22:56:01 0.990	277.98	50.8
Friday, July 15, 2016 23:01:02 0.990	282.94	50.6
Friday, July 15, 2016 23:06:02 0.990	287.89	50.5
Friday, July 15, 2016 23:11:03 0.990	292.86	50.6
Friday, July 15, 2016 23:16:03 0.990	297.81	50.6
Friday, July 15, 2016 23:21:04 0.990	302.78	50.6
Friday, July 15, 2016 23:26:04 0.990	307.73	50.8
Friday, July 15, 2016 23:31:05 0.990	312.70	50.5
Friday, July 15, 2016 23:36:06 0.990	317.67	50.6
Friday, July 15, 2016 23:41:06 0.990	322.62	50.5
Friday, July 15, 2016 23:46:07 0.990	327.59	50.4
Friday, July 15, 2016 23:51:07 0.990	332.54	51.3
Friday, July 15, 2016 23:56:08 0.990	337.51	50.6
Saturday, July 16, 2016 0:01:08 0.990	342.46	50.5
Saturday, July 16, 2016 0:06:09 0.990	347.43	50.5
Saturday, July 16, 2016 0:11:09 0.990	352.38	50.6
Saturday, July 16, 2016 0:16:10 0.990	357.34	50.5
Saturday, July 16, 2016 0:21:10 0.990	362.30	50.7
Saturday, July 16, 2016 0:26:11 0.990	367.26	50.5
Saturday, July 16, 2016 0:31:11 0.990	372.22	50.6
Saturday, July 16, 2016 0:36:12 0.990	377.18	50.6
Saturday, July 16, 2016 0:41:13 0.990	382.15	50.7
Saturday, July 16, 2016 0:46:13 0.990	387.10	50.0
Saturday, July 16, 2016 0:51:14 0.990	392.07	49.2
Saturday, July 16, 2016 0:56:14 0.990	397.02	49.8
Saturday, July 16, 2016 1:01:15 0.990	401.99	50.6
Saturday, July 16, 2016 1:06:15 0.990	406.94	50.2
Saturday, July 16, 2016 1:11:16 0.990	411.91	51.2
Saturday, July 16, 2016 1:16:16 0.990	416.86	50.2
Saturday, July 16, 2016 1:21:17 0.990	421.83	50.5
Saturday, July 16, 2016 1:26:17 0.990	426.78	50.5

Saturday, July 16, 2016 1:31:18 0.990	431.75	50.5
Saturday, July 16, 2016 1:36:18 0.990	436.70	49.9
Saturday, July 16, 2016 1:41:19 0.990	441.67	50.1
Saturday, July 16, 2016 1:46:19 0.990	446.62	50.6
Saturday, July 16, 2016 1:51:20 0.990	451.59	50.7
Saturday, July 16, 2016 1:56:21 0.990	456.55	50.9
Saturday, July 16, 2016 2:01:21 0.990	461.50	50.2
Saturday, July 16, 2016 2:06:22 0.990	466.47	50.1
Saturday, July 16, 2016 2:11:22 0.990	471.42	50.7
Saturday, July 16, 2016 2:16:23 0.990	476.39	51.0
Saturday, July 16, 2016 2:21:23 0.990	481.34	50.1
Saturday, July 16, 2016 2:26:24 0.990	486.31	50.2
Saturday, July 16, 2016 2:31:24 0.990	491.26	50.9
Saturday, July 16, 2016 2:36:25 0.990	496.23	50.8
Saturday, July 16, 2016 2:41:25 0.990	501.18	50.5
Saturday, July 16, 2016 2:46:26 0.990	506.15	50.4
Saturday, July 16, 2016 2:51:27 0.990	511.12	50.3
Saturday, July 16, 2016 2:56:27 0.990	516.07	50.8
Saturday, July 16, 2016 3:01:28 0.990	521.04	50.7
Saturday, July 16, 2016 3:06:28 0.990	525.99	50.1
Saturday, July 16, 2016 3:11:29 0.990	530.96	50.5
Saturday, July 16, 2016 3:16:29 0.990	535.91	50.1
Saturday, July 16, 2016 3:21:30 0.990	540.88	50.8
Saturday, July 16, 2016 3:26:30 0.990	545.83	50.6
Saturday, July 16, 2016 3:31:31 0.990	550.80	50.6
Saturday, July 16, 2016 3:36:31 0.990	555.75	50.6
Saturday, July 16, 2016 3:41:32 0.990	560.72	50.5
Saturday, July 16, 2016 3:46:32 0.990	565.67	50.9
Saturday, July 16, 2016 3:51:33 0.990	570.64	50.9
Saturday, July 16, 2016 3:56:33 0.990	575.59	50.6
Saturday, July 16, 2016 4:01:34 0.990	580.56	50.4
Saturday, July 16, 2016 4:06:34 0.990	585.51	50.5
Saturday, July 16, 2016 4:11:35 0.990	590.48	50.5
Saturday, July 16, 2016 4:16:36 0.990	595.45	50.2
Saturday, July 16, 2016 4:21:36 0.990	600.40	51.0
Saturday, July 16, 2016 4:26:37 0.990	605.37	50.9
Saturday, July 16, 2016 4:31:37 0.990	610.32	50.6
Saturday, July 16, 2016 4:36:38 0.990	615.29	50.3
Saturday, July 16, 2016 4:41:38 0.990	620.24	50.8
Saturday, July 16, 2016 4:46:39 0.990	625.21	50.1
Saturday, July 16, 2016 4:51:39 0.990	630.16	51.0
Saturday, July 16, 2016 4:56:40 0.990	635.13	50.8
Saturday, July 16, 2016 5:01:40 0.990	640.08	50.6
Saturday, July 16, 2016 5:06:41 0.990	645.05	50.0
Saturday, July 16, 2016 5:11:41 0.990	650.00	50.3
Saturday, July 16, 2016 5:16:42 0.990	654.97	50.2
Saturday, July 16, 2016 5:21:43 0.990	659.94	50.4
Saturday, July 16, 2016 5:26:43 0.990	664.89	50.5
Saturday, July 16, 2016 5:31:44 0.990	669.86	51.1
Saturday, July 16, 2016 5:36:44 0.990	674.81	50.5
Saturday, July 16, 2016 5:41:45 0.990	679.78	50.6
Saturday, July 16, 2016 5:46:45 0.990	684.73	50.2
Saturday, July 16, 2016 5:51:46 0.990	689.70	50.2
Saturday, July 16, 2016 5:56:46 0.990	694.65	50.5

Saturday, July 16, 2016 6:01:47	0.990	699.62	50.8
Saturday, July 16, 2016 6:06:47	0.990	704.57	50.3
Saturday, July 16, 2016 6:11:48	0.990	709.54	50.6
Saturday, July 16, 2016 6:15:01	0.990	712.72	50.2

aqms5

formaldehyde001

Ch. 1 Cartridge Started Thursday, July 21, 2016 6:00:00

Flow Rate Set Point 1.00 l/min

Stopped Thursday, July 21, 2016 18:00:26

Total Volume 713.14 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.003 l/min

Ending Leak Rate -0.007 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Thursday, July 21, 2016 6:00:27	0.078	0.23	50.0
Thursday, July 21, 2016 6:05:27	0.991	5.18	50.5
Thursday, July 21, 2016 6:10:28	0.991	10.15	50.5
Thursday, July 21, 2016 6:15:28	0.990	15.10	50.4
Thursday, July 21, 2016 6:20:29	0.990	20.07	50.4
Thursday, July 21, 2016 6:25:29	0.991	25.02	50.6
Thursday, July 21, 2016 6:30:30	0.990	29.99	50.9
Thursday, July 21, 2016 6:35:30	0.991	34.94	50.0
Thursday, July 21, 2016 6:40:31	0.991	39.91	50.8
Thursday, July 21, 2016 6:45:31	0.991	44.87	49.6
Thursday, July 21, 2016 6:50:32	0.991	49.84	50.8
Thursday, July 21, 2016 6:55:32	0.991	54.79	50.6
Thursday, July 21, 2016 7:00:33	0.991	59.76	49.9
Thursday, July 21, 2016 7:05:33	0.991	64.71	50.8
Thursday, July 21, 2016 7:10:34	0.991	69.68	50.5
Thursday, July 21, 2016 7:15:34	0.991	74.63	51.0
Thursday, July 21, 2016 7:20:35	0.991	79.60	50.4
Thursday, July 21, 2016 7:25:36	0.991	84.57	50.9
Thursday, July 21, 2016 7:30:36	0.991	89.53	50.5
Thursday, July 21, 2016 7:35:37	0.991	94.49	50.4
Thursday, July 21, 2016 7:40:37	0.991	99.45	50.5
Thursday, July 21, 2016 7:45:38	0.991	104.42	50.8
Thursday, July 21, 2016 7:50:38	0.991	109.37	50.1
Thursday, July 21, 2016 7:55:39	0.991	114.34	50.3
Thursday, July 21, 2016 8:00:39	0.991	119.29	50.9
Thursday, July 21, 2016 8:05:40	0.991	124.26	50.4
Thursday, July 21, 2016 8:10:40	0.991	129.22	50.9
Thursday, July 21, 2016 8:15:41	0.991	134.19	50.9
Thursday, July 21, 2016 8:20:41	0.991	139.14	50.1
Thursday, July 21, 2016 8:25:42	0.991	144.11	49.4
Thursday, July 21, 2016 8:30:42	0.991	149.06	50.5
Thursday, July 21, 2016 8:35:43	0.991	154.03	49.7
Thursday, July 21, 2016 8:40:43	0.991	158.99	50.7

Thursday, July 21, 2016 8:45:44 0.991	163.96	49.7
Thursday, July 21, 2016 8:50:44 0.991	168.91	50.5
Thursday, July 21, 2016 8:55:45 0.991	173.88	51.0
Thursday, July 21, 2016 9:00:45 0.991	178.83	50.0
Thursday, July 21, 2016 9:05:46 0.991	183.80	50.2
Thursday, July 21, 2016 9:10:47 0.991	188.77	50.8
Thursday, July 21, 2016 9:15:47 0.991	193.73	50.5
Thursday, July 21, 2016 9:20:48 0.991	198.70	50.1
Thursday, July 21, 2016 9:25:48 0.991	203.65	50.5
Thursday, July 21, 2016 9:30:49 0.991	208.62	50.2
Thursday, July 21, 2016 9:35:49 0.991	213.57	50.0
Thursday, July 21, 2016 9:40:50 0.991	218.54	50.5
Thursday, July 21, 2016 9:45:50 0.991	223.50	50.8
Thursday, July 21, 2016 9:50:51 0.991	228.47	50.2
Thursday, July 21, 2016 9:55:52 0.991	233.44	50.9
Thursday, July 21, 2016 10:00:52 0.991	238.39	50.2
Thursday, July 21, 2016 10:05:53 0.991	243.36	50.1
Thursday, July 21, 2016 10:10:53 0.991	248.31	50.9
Thursday, July 21, 2016 10:15:54 0.991	253.28	50.1
Thursday, July 21, 2016 10:20:54 0.991	258.24	50.5
Thursday, July 21, 2016 10:25:55 0.991	263.21	50.5
Thursday, July 21, 2016 10:30:55 0.991	268.16	50.4
Thursday, July 21, 2016 10:35:56 0.991	273.13	50.7
Thursday, July 21, 2016 10:40:57 0.991	278.10	49.7
Thursday, July 21, 2016 10:45:57 0.991	283.05	50.4
Thursday, July 21, 2016 10:50:58 0.991	288.02	50.2
Thursday, July 21, 2016 10:55:58 0.991	292.98	50.1
Thursday, July 21, 2016 11:00:59 0.991	297.95	50.8
Thursday, July 21, 2016 11:05:59 0.991	302.90	50.5
Thursday, July 21, 2016 11:11:00 0.991	307.87	50.5
Thursday, July 21, 2016 11:16:00 0.991	312.82	50.9
Thursday, July 21, 2016 11:21:01 0.991	317.79	49.4
Thursday, July 21, 2016 11:26:01 0.991	322.75	50.8
Thursday, July 21, 2016 11:31:02 0.991	327.72	50.5
Thursday, July 21, 2016 11:36:03 0.991	332.69	50.5
Thursday, July 21, 2016 11:41:03 0.991	337.64	50.2
Thursday, July 21, 2016 11:46:04 0.991	342.61	50.4
Thursday, July 21, 2016 11:51:04 0.991	347.57	50.6
Thursday, July 21, 2016 11:56:05 0.991	352.54	50.5
Thursday, July 21, 2016 12:01:05 0.991	357.49	50.1
Thursday, July 21, 2016 12:06:06 0.991	362.46	50.6
Thursday, July 21, 2016 12:11:07 0.991	367.43	50.8
Thursday, July 21, 2016 12:16:07 0.991	372.38	50.9
Thursday, July 21, 2016 12:21:08 0.991	377.35	50.9
Thursday, July 21, 2016 12:26:08 0.991	382.31	50.7
Thursday, July 21, 2016 12:31:09 0.991	387.28	50.8
Thursday, July 21, 2016 12:36:09 0.991	392.23	50.2
Thursday, July 21, 2016 12:41:10 0.991	397.20	50.4
Thursday, July 21, 2016 12:46:10 0.991	402.15	50.7
Thursday, July 21, 2016 12:51:11 0.991	407.12	50.4
Thursday, July 21, 2016 12:56:12 0.991	412.09	50.4
Thursday, July 21, 2016 13:01:12 0.991	417.05	50.5
Thursday, July 21, 2016 13:06:13 0.991	422.02	50.8
Thursday, July 21, 2016 13:11:13 0.991	426.97	50.4

Thursday, July 21, 2016 13:16:14 0.991	431.94	50.9
Thursday, July 21, 2016 13:21:14 0.991	436.89	50.7
Thursday, July 21, 2016 13:26:15 0.991	441.86	50.1
Thursday, July 21, 2016 13:31:15 0.991	446.82	50.4
Thursday, July 21, 2016 13:36:16 0.991	451.79	50.2
Thursday, July 21, 2016 13:41:16 0.991	456.74	50.5
Thursday, July 21, 2016 13:46:17 0.991	461.71	49.7
Thursday, July 21, 2016 13:51:17 0.991	466.66	51.1
Thursday, July 21, 2016 13:56:18 0.991	471.63	50.4
Thursday, July 21, 2016 14:01:19 0.991	476.60	50.2
Thursday, July 21, 2016 14:06:19 0.991	481.56	50.7
Thursday, July 21, 2016 14:11:20 0.991	486.53	50.5
Thursday, July 21, 2016 14:16:20 0.991	491.48	50.1
Thursday, July 21, 2016 14:21:21 0.991	496.45	50.6
Thursday, July 21, 2016 14:26:21 0.991	501.40	50.7
Thursday, July 21, 2016 14:31:22 0.991	506.37	50.6
Thursday, July 21, 2016 14:36:22 0.991	511.33	50.4
Thursday, July 21, 2016 14:41:23 0.991	516.30	50.9
Thursday, July 21, 2016 14:46:24 0.991	521.27	50.8
Thursday, July 21, 2016 14:51:24 0.991	526.22	50.3
Thursday, July 21, 2016 14:56:25 0.991	531.19	50.8
Thursday, July 21, 2016 15:01:25 0.991	536.14	50.6
Thursday, July 21, 2016 15:06:25 0.991	541.10	49.7
Thursday, July 21, 2016 15:11:26 0.991	546.07	50.1
Thursday, July 21, 2016 15:16:26 0.991	551.02	50.2
Thursday, July 21, 2016 15:21:27 0.991	555.99	50.3
Thursday, July 21, 2016 15:26:27 0.991	560.94	50.2
Thursday, July 21, 2016 15:31:27 0.991	565.90	50.5
Thursday, July 21, 2016 15:36:28 0.991	570.87	50.4
Thursday, July 21, 2016 15:41:28 0.991	575.82	50.6
Thursday, July 21, 2016 15:46:29 0.991	580.79	50.5
Thursday, July 21, 2016 15:51:29 0.991	585.74	49.8
Thursday, July 21, 2016 15:56:30 0.991	590.71	50.2
Thursday, July 21, 2016 16:01:30 0.991	595.66	50.7
Thursday, July 21, 2016 16:06:31 0.991	600.63	50.5
Thursday, July 21, 2016 16:11:31 0.991	605.59	50.5
Thursday, July 21, 2016 16:16:32 0.991	610.56	50.2
Thursday, July 21, 2016 16:21:32 0.991	615.51	50.5
Thursday, July 21, 2016 16:26:33 0.991	620.48	49.7
Thursday, July 21, 2016 16:31:33 0.991	625.43	50.0
Thursday, July 21, 2016 16:36:34 0.991	630.40	50.1
Thursday, July 21, 2016 16:41:34 0.991	635.36	50.6
Thursday, July 21, 2016 16:46:34 0.991	640.31	50.2
Thursday, July 21, 2016 16:51:35 0.991	645.28	50.2
Thursday, July 21, 2016 16:56:35 0.991	650.23	49.8
Thursday, July 21, 2016 17:01:36 0.991	655.20	50.0
Thursday, July 21, 2016 17:06:36 0.991	660.15	50.1
Thursday, July 21, 2016 17:11:37 0.991	665.12	50.5
Thursday, July 21, 2016 17:16:37 0.991	670.08	50.4
Thursday, July 21, 2016 17:21:38 0.991	675.05	50.5
Thursday, July 21, 2016 17:26:38 0.991	680.00	50.5
Thursday, July 21, 2016 17:31:39 0.991	684.97	50.4
Thursday, July 21, 2016 17:36:39 0.991	689.92	50.7
Thursday, July 21, 2016 17:41:40 0.991	694.89	50.0

Thursday, July 21, 2016 17:46:40	0.991	699.85	50.5
Thursday, July 21, 2016 17:51:40	0.991	704.80	50.5
Thursday, July 21, 2016 17:56:41	0.991	709.77	50.5
Thursday, July 21, 2016 18:00:05	0.991	713.14	50.4

aqms5

formaldehyde002

Ch. 2 Cartridge Started Thursday, July 21, 2016 18:15:02

Flow Rate Set Point 1.00 l/min

Stopped Friday, July 22, 2016 6:15:24

Total Volume 712.82 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Thursday, July 21, 2016 18:15:29	0.081	0.22	50.8
Thursday, July 21, 2016 18:20:29	0.990	5.18	50.3
Thursday, July 21, 2016 18:25:30	0.990	10.15	50.4
Thursday, July 21, 2016 18:30:30	0.990	15.10	50.1
Thursday, July 21, 2016 18:35:31	0.990	20.06	50.7
Thursday, July 21, 2016 18:40:31	0.990	25.02	50.2
Thursday, July 21, 2016 18:45:32	0.990	29.98	50.6
Thursday, July 21, 2016 18:50:32	0.990	34.93	50.6
Thursday, July 21, 2016 18:55:33	0.990	39.90	50.7
Thursday, July 21, 2016 19:00:33	0.990	44.85	50.5
Thursday, July 21, 2016 19:05:34	0.990	49.82	50.6
Thursday, July 21, 2016 19:10:34	0.990	54.77	50.5
Thursday, July 21, 2016 19:15:35	0.990	59.74	50.5
Thursday, July 21, 2016 19:20:35	0.990	64.69	50.2
Thursday, July 21, 2016 19:25:36	0.990	69.66	50.4
Thursday, July 21, 2016 19:30:36	0.990	74.61	50.5
Thursday, July 21, 2016 19:35:37	0.990	79.58	50.5
Thursday, July 21, 2016 19:40:37	0.990	84.53	50.1
Thursday, July 21, 2016 19:45:37	0.990	89.48	50.2
Thursday, July 21, 2016 19:50:38	0.990	94.45	50.5
Thursday, July 21, 2016 19:55:38	0.990	99.40	50.6
Thursday, July 21, 2016 20:00:39	0.990	104.37	50.3
Thursday, July 21, 2016 20:05:39	0.990	109.32	50.5
Thursday, July 21, 2016 20:10:40	0.990	114.29	50.4
Thursday, July 21, 2016 20:15:40	0.990	119.24	50.8
Thursday, July 21, 2016 20:20:41	0.990	124.21	50.6
Thursday, July 21, 2016 20:25:42	0.990	129.17	50.5
Thursday, July 21, 2016 20:30:42	0.990	134.13	50.6
Thursday, July 21, 2016 20:35:43	0.990	139.09	49.9
Thursday, July 21, 2016 20:40:43	0.990	144.04	50.4
Thursday, July 21, 2016 20:45:44	0.990	149.01	49.7
Thursday, July 21, 2016 20:50:44	0.990	153.96	50.7
Thursday, July 21, 2016 20:55:45	0.990	158.93	50.5

Thursday, July 21, 2016 21:00:45 0.990	163.88	51.0
Thursday, July 21, 2016 21:05:46 0.990	168.85	50.9
Thursday, July 21, 2016 21:10:46 0.990	173.80	50.8
Thursday, July 21, 2016 21:15:47 0.990	178.77	50.3
Thursday, July 21, 2016 21:20:47 0.990	183.72	50.8
Thursday, July 21, 2016 21:25:48 0.990	188.69	51.0
Thursday, July 21, 2016 21:30:48 0.990	193.64	50.4
Thursday, July 21, 2016 21:35:49 0.990	198.61	50.9
Thursday, July 21, 2016 21:40:49 0.990	203.56	50.5
Thursday, July 21, 2016 21:45:50 0.990	208.53	51.2
Thursday, July 21, 2016 21:50:51 0.990	213.50	50.2
Thursday, July 21, 2016 21:55:51 0.990	218.45	50.5
Thursday, July 21, 2016 22:00:52 0.990	223.42	51.0
Thursday, July 21, 2016 22:05:52 0.990	228.37	50.8
Thursday, July 21, 2016 22:10:53 0.990	233.34	50.5
Thursday, July 21, 2016 22:15:53 0.990	238.29	49.8
Thursday, July 21, 2016 22:20:54 0.990	243.25	50.4
Thursday, July 21, 2016 22:25:54 0.990	248.21	50.9
Thursday, July 21, 2016 22:30:55 0.990	253.17	50.3
Thursday, July 21, 2016 22:35:55 0.990	258.13	50.5
Thursday, July 21, 2016 22:40:56 0.990	263.09	49.6
Thursday, July 21, 2016 22:45:57 0.990	268.06	51.0
Thursday, July 21, 2016 22:50:57 0.990	273.01	51.0
Thursday, July 21, 2016 22:55:58 0.990	277.98	50.1
Thursday, July 21, 2016 23:00:58 0.990	282.93	51.1
Thursday, July 21, 2016 23:05:59 0.990	287.90	50.9
Thursday, July 21, 2016 23:10:59 0.990	292.85	50.9
Thursday, July 21, 2016 23:16:00 0.990	297.82	50.5
Thursday, July 21, 2016 23:21:00 0.990	302.77	51.1
Thursday, July 21, 2016 23:26:01 0.990	307.74	50.9
Thursday, July 21, 2016 23:31:02 0.990	312.71	50.8
Thursday, July 21, 2016 23:36:02 0.990	317.66	50.6
Thursday, July 21, 2016 23:41:03 0.990	322.63	51.0
Thursday, July 21, 2016 23:46:03 0.990	327.58	50.5
Thursday, July 21, 2016 23:51:04 0.990	332.55	50.6
Thursday, July 21, 2016 23:56:04 0.990	337.50	51.1
Friday, July 22, 2016 0:01:05 0.990	342.46	50.6
Friday, July 22, 2016 0:06:05 0.990	347.42	50.8
Friday, July 22, 2016 0:11:06 0.990	352.38	51.1
Friday, July 22, 2016 0:16:06 0.990	357.34	50.8
Friday, July 22, 2016 0:21:07 0.990	362.30	50.5
Friday, July 22, 2016 0:26:08 0.990	367.27	51.0
Friday, July 22, 2016 0:31:08 0.990	372.22	50.3
Friday, July 22, 2016 0:36:09 0.990	377.19	50.1
Friday, July 22, 2016 0:41:09 0.990	382.14	50.7
Friday, July 22, 2016 0:46:10 0.990	387.11	50.1
Friday, July 22, 2016 0:51:10 0.990	392.06	50.3
Friday, July 22, 2016 0:56:11 0.990	397.03	50.9
Friday, July 22, 2016 1:01:11 0.990	401.98	50.2
Friday, July 22, 2016 1:06:12 0.990	406.95	50.9
Friday, July 22, 2016 1:11:12 0.990	411.90	50.6
Friday, July 22, 2016 1:16:13 0.990	416.87	49.7
Friday, July 22, 2016 1:21:13 0.990	421.82	50.9
Friday, July 22, 2016 1:26:14 0.990	426.79	50.2

Friday, July 22, 2016 1:31:14 0.990	431.74	50.5
Friday, July 22, 2016 1:36:15 0.990	436.71	50.3
Friday, July 22, 2016 1:41:16 0.990	441.67	50.2
Friday, July 22, 2016 1:46:16 0.990	446.63	50.8
Friday, July 22, 2016 1:51:17 0.990	451.59	50.6
Friday, July 22, 2016 1:56:17 0.990	456.55	49.7
Friday, July 22, 2016 2:01:18 0.990	461.51	50.8
Friday, July 22, 2016 2:06:18 0.990	466.46	50.5
Friday, July 22, 2016 2:11:19 0.990	471.43	50.5
Friday, July 22, 2016 2:16:19 0.990	476.38	50.6
Friday, July 22, 2016 2:21:20 0.990	481.35	50.1
Friday, July 22, 2016 2:26:20 0.990	486.30	50.9
Friday, July 22, 2016 2:31:21 0.990	491.27	50.4
Friday, July 22, 2016 2:36:21 0.990	496.22	50.8
Friday, July 22, 2016 2:41:22 0.990	501.19	50.2
Friday, July 22, 2016 2:46:22 0.990	506.14	50.5
Friday, July 22, 2016 2:51:23 0.990	511.11	51.1
Friday, July 22, 2016 2:56:23 0.990	516.06	50.4
Friday, July 22, 2016 3:01:24 0.990	521.03	50.1
Friday, July 22, 2016 3:06:25 0.990	526.00	50.7
Friday, July 22, 2016 3:11:25 0.990	530.95	50.5
Friday, July 22, 2016 3:16:26 0.990	535.92	50.9
Friday, July 22, 2016 3:21:26 0.990	540.87	50.2
Friday, July 22, 2016 3:26:27 0.990	545.84	50.1
Friday, July 22, 2016 3:31:27 0.990	550.79	50.2
Friday, July 22, 2016 3:36:28 0.990	555.76	50.1
Friday, July 22, 2016 3:41:28 0.990	560.71	51.0
Friday, July 22, 2016 3:46:29 0.990	565.68	50.5
Friday, July 22, 2016 3:51:29 0.990	570.63	50.5
Friday, July 22, 2016 3:56:30 0.990	575.60	50.5
Friday, July 22, 2016 4:01:30 0.990	580.55	50.5
Friday, July 22, 2016 4:06:31 0.990	585.52	50.1
Friday, July 22, 2016 4:11:32 0.990	590.49	50.9
Friday, July 22, 2016 4:16:32 0.990	595.44	50.5
Friday, July 22, 2016 4:21:33 0.990	600.41	50.3
Friday, July 22, 2016 4:26:33 0.990	605.36	49.7
Friday, July 22, 2016 4:31:34 0.990	610.33	49.8
Friday, July 22, 2016 4:36:34 0.990	615.28	50.0
Friday, July 22, 2016 4:41:35 0.990	620.25	50.4
Friday, July 22, 2016 4:46:35 0.990	625.20	50.6
Friday, July 22, 2016 4:51:36 0.990	630.17	50.9
Friday, July 22, 2016 4:56:36 0.990	635.12	50.9
Friday, July 22, 2016 5:01:37 0.990	640.09	50.9
Friday, July 22, 2016 5:06:37 0.990	645.04	50.8
Friday, July 22, 2016 5:11:38 0.990	650.01	50.1
Friday, July 22, 2016 5:16:39 0.990	654.98	50.4
Friday, July 22, 2016 5:21:39 0.990	659.93	50.9
Friday, July 22, 2016 5:26:40 0.990	664.90	50.1
Friday, July 22, 2016 5:31:40 0.990	669.85	50.4
Friday, July 22, 2016 5:36:41 0.990	674.82	50.5
Friday, July 22, 2016 5:41:41 0.990	679.77	51.0
Friday, July 22, 2016 5:46:42 0.990	684.74	50.2
Friday, July 22, 2016 5:51:42 0.990	689.69	50.5
Friday, July 22, 2016 5:56:43 0.990	694.66	50.8

Friday, July 22, 2016 6:01:43	0.990	699.61	50.5
Friday, July 22, 2016 6:06:44	0.990	704.58	50.9
Friday, July 22, 2016 6:11:44	0.990	709.53	50.7
Friday, July 22, 2016 6:15:03	0.990	712.82	50.7

aqms5

formaldehyde001

Ch. 1 Cartridge Started Wednesday, July 27, 2016 6:00:00

Flow Rate Set Point 1.00 l/min

Stopped Wednesday, July 27, 2016 18:00:26

Total Volume 713.14 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.002 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Wednesday, July 27, 2016 6:00:27	0.078	0.23	50.3
Wednesday, July 27, 2016 6:05:27	0.991	5.18	50.6
Wednesday, July 27, 2016 6:10:28	0.990	10.15	50.2
Wednesday, July 27, 2016 6:15:28	0.991	15.10	50.6
Wednesday, July 27, 2016 6:20:29	0.990	20.07	50.5
Wednesday, July 27, 2016 6:25:29	0.990	25.02	50.2
Wednesday, July 27, 2016 6:30:30	0.990	29.99	49.8
Wednesday, July 27, 2016 6:35:30	0.990	34.94	50.4
Wednesday, July 27, 2016 6:40:31	0.990	39.91	50.3
Wednesday, July 27, 2016 6:45:31	0.991	44.87	50.1
Wednesday, July 27, 2016 6:50:32	0.991	49.84	50.1
Wednesday, July 27, 2016 6:55:33	0.991	54.80	50.4
Wednesday, July 27, 2016 7:00:33	0.991	59.76	50.1
Wednesday, July 27, 2016 7:05:34	0.991	64.73	50.5
Wednesday, July 27, 2016 7:10:34	0.991	69.68	50.7
Wednesday, July 27, 2016 7:15:35	0.991	74.65	50.0
Wednesday, July 27, 2016 7:20:35	0.991	79.60	50.7
Wednesday, July 27, 2016 7:25:36	0.991	84.57	50.0
Wednesday, July 27, 2016 7:30:37	0.991	89.54	50.1
Wednesday, July 27, 2016 7:35:37	0.991	94.49	50.1
Wednesday, July 27, 2016 7:40:38	0.991	99.46	50.8
Wednesday, July 27, 2016 7:45:38	0.991	104.42	50.6
Wednesday, July 27, 2016 7:50:39	0.991	109.39	50.1
Wednesday, July 27, 2016 7:55:39	0.991	114.34	50.8
Wednesday, July 27, 2016 8:00:40	0.991	119.31	50.3
Wednesday, July 27, 2016 8:05:41	0.991	124.28	50.1
Wednesday, July 27, 2016 8:10:41	0.991	129.23	50.4
Wednesday, July 27, 2016 8:15:42	0.991	134.20	50.4
Wednesday, July 27, 2016 8:20:42	0.991	139.16	50.1
Wednesday, July 27, 2016 8:25:43	0.991	144.13	50.6
Wednesday, July 27, 2016 8:30:43	0.991	149.08	50.8
Wednesday, July 27, 2016 8:35:44	0.991	154.05	50.6
Wednesday, July 27, 2016 8:40:45	0.991	159.02	50.5

Wednesday, July 27, 2016 8:45:45 0.991	163.97	50.2
Wednesday, July 27, 2016 8:50:46 0.991	168.94	50.5
Wednesday, July 27, 2016 8:55:46 0.991	173.89	50.6
Wednesday, July 27, 2016 9:00:47 0.991	178.86	51.0
Wednesday, July 27, 2016 9:05:47 0.991	183.82	50.2
Wednesday, July 27, 2016 9:10:48 0.991	188.79	50.5
Wednesday, July 27, 2016 9:15:48 0.991	193.74	50.1
Wednesday, July 27, 2016 9:20:49 0.991	198.71	50.5
Wednesday, July 27, 2016 9:25:50 0.991	203.68	50.6
Wednesday, July 27, 2016 9:30:50 0.991	208.63	50.3
Wednesday, July 27, 2016 9:35:51 0.991	213.60	50.9
Wednesday, July 27, 2016 9:40:51 0.991	218.56	50.8
Wednesday, July 27, 2016 9:45:52 0.991	223.53	49.9
Wednesday, July 27, 2016 9:50:52 0.991	228.48	50.8
Wednesday, July 27, 2016 9:55:53 0.991	233.45	50.3
Wednesday, July 27, 2016 10:00:53 0.991	238.40	49.9
Wednesday, July 27, 2016 10:05:54 0.991	243.37	50.7
Wednesday, July 27, 2016 10:10:54 0.991	248.33	50.8
Wednesday, July 27, 2016 10:15:55 0.991	253.30	50.9
Wednesday, July 27, 2016 10:20:55 0.991	258.25	50.5
Wednesday, July 27, 2016 10:25:56 0.991	263.22	50.2
Wednesday, July 27, 2016 10:30:56 0.991	268.17	50.4
Wednesday, July 27, 2016 10:35:57 0.991	273.14	50.2
Wednesday, July 27, 2016 10:40:57 0.991	278.10	50.3
Wednesday, July 27, 2016 10:45:58 0.991	283.07	50.9
Wednesday, July 27, 2016 10:50:58 0.991	288.02	50.9
Wednesday, July 27, 2016 10:55:59 0.991	292.99	50.3
Wednesday, July 27, 2016 11:01:00 0.991	297.96	50.9
Wednesday, July 27, 2016 11:06:00 0.991	302.92	50.5
Wednesday, July 27, 2016 11:11:01 0.991	307.89	50.5
Wednesday, July 27, 2016 11:16:01 0.991	312.84	50.4
Wednesday, July 27, 2016 11:21:02 0.991	317.81	50.5
Wednesday, July 27, 2016 11:26:02 0.991	322.76	50.9
Wednesday, July 27, 2016 11:31:03 0.991	327.73	50.1
Wednesday, July 27, 2016 11:36:04 0.991	332.70	50.5
Wednesday, July 27, 2016 11:41:04 0.991	337.66	50.1
Wednesday, July 27, 2016 11:46:05 0.991	342.63	50.0
Wednesday, July 27, 2016 11:51:05 0.991	347.58	50.9
Wednesday, July 27, 2016 11:56:06 0.991	352.55	49.4
Wednesday, July 27, 2016 12:01:06 0.991	357.50	50.8
Wednesday, July 27, 2016 12:06:07 0.991	362.47	50.7
Wednesday, July 27, 2016 12:11:08 0.991	367.44	50.7
Wednesday, July 27, 2016 12:16:08 0.991	372.40	51.0
Wednesday, July 27, 2016 12:21:09 0.991	377.37	50.3
Wednesday, July 27, 2016 12:26:09 0.991	382.32	50.4
Wednesday, July 27, 2016 12:31:10 0.991	387.29	50.4
Wednesday, July 27, 2016 12:36:10 0.991	392.24	50.8
Wednesday, July 27, 2016 12:41:11 0.991	397.21	50.3
Wednesday, July 27, 2016 12:46:11 0.991	402.17	50.5
Wednesday, July 27, 2016 12:51:12 0.991	407.14	50.0
Wednesday, July 27, 2016 12:56:12 0.991	412.09	50.2
Wednesday, July 27, 2016 13:01:13 0.991	417.06	50.0
Wednesday, July 27, 2016 13:06:13 0.991	422.01	49.7
Wednesday, July 27, 2016 13:11:14 0.991	426.98	50.1

Wednesday, July 27, 2016 13:16:14 0.991	431.94	50.1
Wednesday, July 27, 2016 13:21:15 0.991	436.91	50.6
Wednesday, July 27, 2016 13:26:15 0.991	441.86	50.4
Wednesday, July 27, 2016 13:31:15 0.991	446.81	50.1
Wednesday, July 27, 2016 13:36:16 0.991	451.79	50.1
Wednesday, July 27, 2016 13:41:16 0.991	456.74	50.2
Wednesday, July 27, 2016 13:46:16 0.991	461.69	50.3
Wednesday, July 27, 2016 13:51:17 0.991	466.66	50.3
Wednesday, July 27, 2016 13:56:17 0.991	471.62	50.3
Wednesday, July 27, 2016 14:01:17 0.991	476.57	50.1
Wednesday, July 27, 2016 14:06:17 0.991	481.53	50.2
Wednesday, July 27, 2016 14:11:18 0.991	486.50	50.2
Wednesday, July 27, 2016 14:16:18 0.991	491.45	50.2
Wednesday, July 27, 2016 14:21:18 0.991	496.40	50.2
Wednesday, July 27, 2016 14:26:19 0.991	501.37	50.1
Wednesday, July 27, 2016 14:31:19 0.991	506.33	50.3
Wednesday, July 27, 2016 14:36:19 0.991	511.28	50.2
Wednesday, July 27, 2016 14:41:20 0.991	516.25	50.1
Wednesday, July 27, 2016 14:46:20 0.991	521.21	50.1
Wednesday, July 27, 2016 14:51:20 0.991	526.16	50.2
Wednesday, July 27, 2016 14:56:21 0.991	531.13	50.3
Wednesday, July 27, 2016 15:01:21 0.991	536.08	50.2
Wednesday, July 27, 2016 15:06:21 0.991	541.04	50.1
Wednesday, July 27, 2016 15:11:22 0.991	546.01	50.3
Wednesday, July 27, 2016 15:16:22 0.991	550.96	50.1
Wednesday, July 27, 2016 15:21:22 0.991	555.92	50.1
Wednesday, July 27, 2016 15:26:22 0.991	560.87	50.1
Wednesday, July 27, 2016 15:31:23 0.991	565.84	50.2
Wednesday, July 27, 2016 15:36:23 0.991	570.79	50.2
Wednesday, July 27, 2016 15:41:23 0.991	575.75	50.2
Wednesday, July 27, 2016 15:46:24 0.991	580.72	50.2
Wednesday, July 27, 2016 15:51:24 0.991	585.67	50.1
Wednesday, July 27, 2016 15:56:24 0.991	590.62	50.2
Wednesday, July 27, 2016 16:01:25 0.991	595.60	50.2
Wednesday, July 27, 2016 16:06:25 0.991	600.55	50.2
Wednesday, July 27, 2016 16:11:25 0.991	605.50	50.2
Wednesday, July 27, 2016 16:16:26 0.991	610.47	50.1
Wednesday, July 27, 2016 16:21:26 0.991	615.42	50.2
Wednesday, July 27, 2016 16:26:26 0.991	620.38	50.1
Wednesday, July 27, 2016 16:31:27 0.991	625.35	50.3
Wednesday, July 27, 2016 16:36:27 0.991	630.30	50.5
Wednesday, July 27, 2016 16:41:28 0.991	635.27	50.6
Wednesday, July 27, 2016 16:46:28 0.991	640.22	49.7
Wednesday, July 27, 2016 16:51:29 0.991	645.19	49.8
Wednesday, July 27, 2016 16:56:29 0.991	650.15	50.3
Wednesday, July 27, 2016 17:01:30 0.991	655.12	50.6
Wednesday, July 27, 2016 17:06:30 0.991	660.07	50.7
Wednesday, July 27, 2016 17:11:31 0.991	665.04	50.1
Wednesday, July 27, 2016 17:16:31 0.991	669.99	50.6
Wednesday, July 27, 2016 17:21:32 0.991	674.96	50.5
Wednesday, July 27, 2016 17:26:32 0.991	679.92	50.6
Wednesday, July 27, 2016 17:31:32 0.991	684.87	50.1
Wednesday, July 27, 2016 17:36:33 0.991	689.84	50.7
Wednesday, July 27, 2016 17:41:33 0.991	694.79	50.1

Wednesday, July 27, 2016 17:46:34	0.991	699.76	50.1
Wednesday, July 27, 2016 17:51:34	0.991	704.71	50.2
Wednesday, July 27, 2016 17:56:35	0.991	709.68	50.7
Wednesday, July 27, 2016 18:00:04	0.991	713.13	50.5

aqms5
formaldehyde002

Ch. 2 Cartridge Started Wednesday, July 27, 2016 18:15:01

Flow Rate Set Point 1.00 l/min

Stopped Thursday, July 28, 2016 6:15:22

Total Volume 712.78 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.003 l/min

Ending Leak Rate -0.003 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Wednesday, July 27, 2016 18:15:28	0.081	0.22	50.2
Wednesday, July 27, 2016 18:20:29	0.990	5.19	50.2
Wednesday, July 27, 2016 18:25:29	0.990	10.14	50.3
Wednesday, July 27, 2016 18:30:30	0.990	15.11	49.8
Wednesday, July 27, 2016 18:35:30	0.990	20.06	50.6
Wednesday, July 27, 2016 18:40:31	0.990	25.03	50.9
Wednesday, July 27, 2016 18:45:31	0.990	29.98	49.8
Wednesday, July 27, 2016 18:50:32	0.990	34.95	50.3
Wednesday, July 27, 2016 18:55:32	0.990	39.90	50.7
Wednesday, July 27, 2016 19:00:33	0.990	44.87	49.7
Wednesday, July 27, 2016 19:05:33	0.990	49.82	50.4
Wednesday, July 27, 2016 19:10:34	0.990	54.79	50.5
Wednesday, July 27, 2016 19:15:34	0.990	59.74	50.2
Wednesday, July 27, 2016 19:20:35	0.990	64.71	50.6
Wednesday, July 27, 2016 19:25:35	0.990	69.66	50.8
Wednesday, July 27, 2016 19:30:36	0.990	74.63	50.9
Wednesday, July 27, 2016 19:35:36	0.990	79.58	50.0
Wednesday, July 27, 2016 19:40:37	0.990	84.55	50.3
Wednesday, July 27, 2016 19:45:37	0.990	89.50	50.7
Wednesday, July 27, 2016 19:50:38	0.990	94.46	50.0
Wednesday, July 27, 2016 19:55:38	0.990	99.42	50.5
Wednesday, July 27, 2016 20:00:39	0.990	104.38	50.5
Wednesday, July 27, 2016 20:05:39	0.990	109.33	50.3
Wednesday, July 27, 2016 20:10:40	0.990	114.30	50.8
Wednesday, July 27, 2016 20:15:40	0.990	119.25	50.4
Wednesday, July 27, 2016 20:20:41	0.990	124.22	50.8
Wednesday, July 27, 2016 20:25:41	0.990	129.17	50.6
Wednesday, July 27, 2016 20:30:42	0.990	134.14	50.5
Wednesday, July 27, 2016 20:35:42	0.990	139.09	50.8
Wednesday, July 27, 2016 20:40:43	0.990	144.06	50.6
Wednesday, July 27, 2016 20:45:43	0.990	149.01	50.2
Wednesday, July 27, 2016 20:50:44	0.990	153.98	49.4
Wednesday, July 27, 2016 20:55:44	0.990	158.93	50.4

Wednesday, July 27, 2016 21:00:45	0.990	163.90	50.1
Wednesday, July 27, 2016 21:05:45	0.990	168.85	50.5
Wednesday, July 27, 2016 21:10:46	0.990	173.82	49.9
Wednesday, July 27, 2016 21:15:46	0.990	178.77	50.3
Wednesday, July 27, 2016 21:20:47	0.990	183.74	50.1
Wednesday, July 27, 2016 21:25:48	0.990	188.70	50.2
Wednesday, July 27, 2016 21:30:48	0.990	193.66	49.8
Wednesday, July 27, 2016 21:35:49	0.990	198.62	50.5
Wednesday, July 27, 2016 21:40:49	0.990	203.58	50.2
Wednesday, July 27, 2016 21:45:50	0.990	208.54	50.4
Wednesday, July 27, 2016 21:50:50	0.990	213.49	50.1
Wednesday, July 27, 2016 21:55:51	0.990	218.46	50.2
Wednesday, July 27, 2016 22:00:51	0.990	223.41	50.5
Wednesday, July 27, 2016 22:05:52	0.990	228.38	50.9
Wednesday, July 27, 2016 22:10:52	0.990	233.33	50.7
Wednesday, July 27, 2016 22:15:53	0.990	238.30	50.3
Wednesday, July 27, 2016 22:20:53	0.990	243.25	50.9
Wednesday, July 27, 2016 22:25:54	0.990	248.22	50.1
Wednesday, July 27, 2016 22:30:54	0.990	253.17	50.4
Wednesday, July 27, 2016 22:35:55	0.990	258.14	50.5
Wednesday, July 27, 2016 22:40:55	0.990	263.09	50.5
Wednesday, July 27, 2016 22:45:56	0.990	268.06	50.4
Wednesday, July 27, 2016 22:50:56	0.990	273.01	50.1
Wednesday, July 27, 2016 22:55:57	0.990	277.98	50.9
Wednesday, July 27, 2016 23:00:57	0.990	282.93	50.5
Wednesday, July 27, 2016 23:05:58	0.990	287.90	50.1
Wednesday, July 27, 2016 23:10:58	0.990	292.85	50.1
Wednesday, July 27, 2016 23:15:59	0.990	297.81	50.6
Wednesday, July 27, 2016 23:20:59	0.990	302.77	50.6
Wednesday, July 27, 2016 23:26:00	0.990	307.73	50.2
Wednesday, July 27, 2016 23:31:00	0.990	312.69	49.7
Wednesday, July 27, 2016 23:36:01	0.990	317.65	50.8
Wednesday, July 27, 2016 23:41:01	0.990	322.60	50.0
Wednesday, July 27, 2016 23:46:02	0.990	327.57	50.5
Wednesday, July 27, 2016 23:51:03	0.990	332.54	50.8
Wednesday, July 27, 2016 23:56:03	0.990	337.49	50.9
Thursday, July 28, 2016 0:01:04	0.990	342.46	49.8
Thursday, July 28, 2016 0:06:04	0.990	347.41	51.1
Thursday, July 28, 2016 0:11:05	0.990	352.38	50.3
Thursday, July 28, 2016 0:16:05	0.990	357.33	50.6
Thursday, July 28, 2016 0:21:06	0.990	362.30	50.4
Thursday, July 28, 2016 0:26:06	0.990	367.25	49.7
Thursday, July 28, 2016 0:31:07	0.990	372.22	50.6
Thursday, July 28, 2016 0:36:07	0.990	377.17	50.8
Thursday, July 28, 2016 0:41:08	0.990	382.13	50.9
Thursday, July 28, 2016 0:46:08	0.990	387.09	50.6
Thursday, July 28, 2016 0:51:09	0.990	392.05	50.3
Thursday, July 28, 2016 0:56:09	0.990	397.01	50.8
Thursday, July 28, 2016 1:01:10	0.990	401.97	50.6
Thursday, July 28, 2016 1:06:10	0.990	406.92	50.2
Thursday, July 28, 2016 1:11:11	0.990	411.89	50.1
Thursday, July 28, 2016 1:16:11	0.990	416.84	50.7
Thursday, July 28, 2016 1:21:12	0.990	421.81	50.6
Thursday, July 28, 2016 1:26:12	0.990	426.76	50.0

Thursday, July 28, 2016 1:31:13 0.990	431.73	50.5
Thursday, July 28, 2016 1:36:13 0.990	436.68	50.1
Thursday, July 28, 2016 1:41:14 0.990	441.65	50.7
Thursday, July 28, 2016 1:46:14 0.990	446.60	50.7
Thursday, July 28, 2016 1:51:15 0.990	451.57	50.2
Thursday, July 28, 2016 1:56:15 0.990	456.52	50.7
Thursday, July 28, 2016 2:01:16 0.990	461.49	50.2
Thursday, July 28, 2016 2:06:16 0.990	466.44	50.1
Thursday, July 28, 2016 2:11:17 0.990	471.41	50.6
Thursday, July 28, 2016 2:16:17 0.990	476.36	50.5
Thursday, July 28, 2016 2:21:18 0.990	481.33	50.2
Thursday, July 28, 2016 2:26:18 0.990	486.28	49.6
Thursday, July 28, 2016 2:31:19 0.990	491.24	50.8
Thursday, July 28, 2016 2:36:19 0.990	496.20	50.6
Thursday, July 28, 2016 2:41:20 0.990	501.16	50.8
Thursday, July 28, 2016 2:46:21 0.990	506.13	50.3
Thursday, July 28, 2016 2:51:21 0.990	511.08	50.1
Thursday, July 28, 2016 2:56:21 0.990	516.03	50.1
Thursday, July 28, 2016 3:01:22 0.990	521.00	50.3
Thursday, July 28, 2016 3:06:22 0.990	525.96	50.5
Thursday, July 28, 2016 3:11:23 0.990	530.92	50.2
Thursday, July 28, 2016 3:16:24 0.990	535.89	50.2
Thursday, July 28, 2016 3:21:24 0.990	540.84	49.7
Thursday, July 28, 2016 3:26:25 0.990	545.81	50.5
Thursday, July 28, 2016 3:31:25 0.990	550.76	50.1
Thursday, July 28, 2016 3:36:26 0.990	555.73	50.5
Thursday, July 28, 2016 3:41:26 0.990	560.68	50.9
Thursday, July 28, 2016 3:46:27 0.990	565.65	50.5
Thursday, July 28, 2016 3:51:27 0.990	570.60	50.6
Thursday, July 28, 2016 3:56:28 0.990	575.57	50.1
Thursday, July 28, 2016 4:01:28 0.990	580.52	50.7
Thursday, July 28, 2016 4:06:29 0.990	585.49	50.6
Thursday, July 28, 2016 4:11:29 0.990	590.44	50.5
Thursday, July 28, 2016 4:16:30 0.990	595.41	50.4
Thursday, July 28, 2016 4:21:30 0.990	600.37	51.0
Thursday, July 28, 2016 4:26:31 0.990	605.33	49.7
Thursday, July 28, 2016 4:31:31 0.990	610.29	50.6
Thursday, July 28, 2016 4:36:32 0.990	615.25	49.9
Thursday, July 28, 2016 4:41:32 0.990	620.21	50.5
Thursday, July 28, 2016 4:46:33 0.990	625.17	50.1
Thursday, July 28, 2016 4:51:33 0.990	630.13	50.9
Thursday, July 28, 2016 4:56:34 0.990	635.09	50.1
Thursday, July 28, 2016 5:01:34 0.990	640.05	50.2
Thursday, July 28, 2016 5:06:35 0.990	645.01	49.8
Thursday, July 28, 2016 5:11:35 0.990	649.97	49.7
Thursday, July 28, 2016 5:16:36 0.990	654.93	50.8
Thursday, July 28, 2016 5:21:36 0.990	659.89	50.4
Thursday, July 28, 2016 5:26:37 0.990	664.85	50.6
Thursday, July 28, 2016 5:31:38 0.990	669.82	50.6
Thursday, July 28, 2016 5:36:38 0.990	674.77	50.4
Thursday, July 28, 2016 5:41:39 0.990	679.73	51.0
Thursday, July 28, 2016 5:46:39 0.990	684.70	50.3
Thursday, July 28, 2016 5:51:40 0.990	689.66	50.4
Thursday, July 28, 2016 5:56:40 0.990	694.62	50.6

Thursday, July 28, 2016 6:01:41	0.990	699.58	50.6
Thursday, July 28, 2016 6:06:41	0.990	704.54	50.5
Thursday, July 28, 2016 6:11:42	0.990	709.50	49.8
Thursday, July 28, 2016 6:15:00	0.990	712.77	50.6

aqms5

formaldehyde001

Ch. 1 Cartridge Started Tuesday, August 02, 2016 6:00:03

Flow Rate Set Point 1.00 l/min

Stopped Tuesday, August 02, 2016 18:00:26

Total Volume 713.08 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.002 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Tuesday, August 02, 2016 6:00:30	0.078	0.23	49.7
Tuesday, August 02, 2016 6:05:30	0.991	5.18	49.6
Tuesday, August 02, 2016 6:10:31	0.991	10.15	50.5
Tuesday, August 02, 2016 6:15:31	0.990	15.10	50.4
Tuesday, August 02, 2016 6:20:32	0.990	20.07	50.6
Tuesday, August 02, 2016 6:25:32	0.990	25.02	50.3
Tuesday, August 02, 2016 6:30:33	0.990	29.99	50.4
Tuesday, August 02, 2016 6:35:33	0.991	34.95	50.2
Tuesday, August 02, 2016 6:40:34	0.991	39.91	50.7
Tuesday, August 02, 2016 6:45:34	0.991	44.87	50.5
Tuesday, August 02, 2016 6:50:35	0.991	49.84	50.4
Tuesday, August 02, 2016 6:55:36	0.991	54.81	49.7
Tuesday, August 02, 2016 7:00:36	0.991	59.76	50.1
Tuesday, August 02, 2016 7:05:37	0.991	64.73	49.7
Tuesday, August 02, 2016 7:10:37	0.991	69.68	50.5
Tuesday, August 02, 2016 7:15:38	0.991	74.65	50.8
Tuesday, August 02, 2016 7:20:38	0.991	79.60	50.8
Tuesday, August 02, 2016 7:25:39	0.991	84.57	49.8
Tuesday, August 02, 2016 7:30:39	0.991	89.53	50.4
Tuesday, August 02, 2016 7:35:40	0.991	94.50	50.5
Tuesday, August 02, 2016 7:40:40	0.991	99.45	50.2
Tuesday, August 02, 2016 7:45:41	0.991	104.42	50.7
Tuesday, August 02, 2016 7:50:41	0.991	109.37	50.2
Tuesday, August 02, 2016 7:55:42	0.991	114.34	49.9
Tuesday, August 02, 2016 8:00:42	0.991	119.29	50.1
Tuesday, August 02, 2016 8:05:43	0.991	124.26	50.5
Tuesday, August 02, 2016 8:10:43	0.991	129.22	50.2
Tuesday, August 02, 2016 8:15:44	0.991	134.19	50.6
Tuesday, August 02, 2016 8:20:44	0.991	139.14	51.0
Tuesday, August 02, 2016 8:25:45	0.991	144.11	50.7
Tuesday, August 02, 2016 8:30:45	0.991	149.06	50.5
Tuesday, August 02, 2016 8:35:46	0.991	154.03	50.1
Tuesday, August 02, 2016 8:40:46	0.991	158.99	50.1

Tuesday, August 02, 2016 8:45:47 0.991	163.96	50.5
Tuesday, August 02, 2016 8:50:47 0.991	168.91	51.0
Tuesday, August 02, 2016 8:55:48 0.991	173.88	49.8
Tuesday, August 02, 2016 9:00:48 0.991	178.83	51.1
Tuesday, August 02, 2016 9:05:49 0.991	183.80	50.5
Tuesday, August 02, 2016 9:10:49 0.991	188.76	50.2
Tuesday, August 02, 2016 9:15:50 0.991	193.73	50.5
Tuesday, August 02, 2016 9:20:50 0.991	198.68	50.6
Tuesday, August 02, 2016 9:25:51 0.991	203.65	50.5
Tuesday, August 02, 2016 9:30:52 0.991	208.62	50.5
Tuesday, August 02, 2016 9:35:52 0.991	213.57	50.4
Tuesday, August 02, 2016 9:40:53 0.991	218.54	50.9
Tuesday, August 02, 2016 9:45:53 0.991	223.49	50.6
Tuesday, August 02, 2016 9:50:54 0.991	228.46	50.3
Tuesday, August 02, 2016 9:55:54 0.991	233.42	50.0
Tuesday, August 02, 2016 10:00:55 0.991	238.39	50.2
Tuesday, August 02, 2016 10:05:55 0.991	243.34	50.9
Tuesday, August 02, 2016 10:10:56 0.991	248.31	50.6
Tuesday, August 02, 2016 10:15:56 0.991	253.26	50.9
Tuesday, August 02, 2016 10:20:57 0.991	258.23	50.8
Tuesday, August 02, 2016 10:25:57 0.991	263.19	50.9
Tuesday, August 02, 2016 10:30:58 0.991	268.16	49.6
Tuesday, August 02, 2016 10:35:58 0.991	273.11	50.4
Tuesday, August 02, 2016 10:40:59 0.991	278.08	49.7
Tuesday, August 02, 2016 10:45:59 0.991	283.03	49.9
Tuesday, August 02, 2016 10:51:00 0.991	288.00	50.3
Tuesday, August 02, 2016 10:56:00 0.991	292.96	50.7
Tuesday, August 02, 2016 11:01:01 0.991	297.93	50.8
Tuesday, August 02, 2016 11:06:01 0.991	302.88	50.3
Tuesday, August 02, 2016 11:11:02 0.991	307.85	50.1
Tuesday, August 02, 2016 11:16:02 0.991	312.80	50.5
Tuesday, August 02, 2016 11:21:03 0.991	317.77	50.9
Tuesday, August 02, 2016 11:26:03 0.991	322.73	50.9
Tuesday, August 02, 2016 11:31:04 0.991	327.70	50.7
Tuesday, August 02, 2016 11:36:05 0.991	332.67	50.7
Tuesday, August 02, 2016 11:41:05 0.991	337.62	50.0
Tuesday, August 02, 2016 11:46:06 0.991	342.59	50.5
Tuesday, August 02, 2016 11:51:06 0.991	347.54	50.3
Tuesday, August 02, 2016 11:56:07 0.991	352.51	50.5
Tuesday, August 02, 2016 12:01:07 0.991	357.47	50.9
Tuesday, August 02, 2016 12:06:08 0.991	362.44	49.8
Tuesday, August 02, 2016 12:11:08 0.991	367.39	49.8
Tuesday, August 02, 2016 12:16:09 0.991	372.36	50.9
Tuesday, August 02, 2016 12:21:09 0.991	377.31	51.0
Tuesday, August 02, 2016 12:26:10 0.991	382.28	50.1
Tuesday, August 02, 2016 12:31:10 0.991	387.24	50.5
Tuesday, August 02, 2016 12:36:11 0.991	392.21	50.2
Tuesday, August 02, 2016 12:41:11 0.991	397.16	50.9
Tuesday, August 02, 2016 12:46:12 0.991	402.13	50.7
Tuesday, August 02, 2016 12:51:12 0.991	407.08	50.3
Tuesday, August 02, 2016 12:56:13 0.991	412.05	50.2
Tuesday, August 02, 2016 13:01:14 0.991	417.02	50.9
Tuesday, August 02, 2016 13:06:14 0.991	421.98	50.8
Tuesday, August 02, 2016 13:11:15 0.991	426.95	50.1

Tuesday, August 02, 2016 13:16:15 0.991	431.90	50.2
Tuesday, August 02, 2016 13:21:16 0.991	436.87	50.2
Tuesday, August 02, 2016 13:26:16 0.991	441.82	50.0
Tuesday, August 02, 2016 13:31:17 0.991	446.79	51.1
Tuesday, August 02, 2016 13:36:17 0.991	451.75	50.8
Tuesday, August 02, 2016 13:41:18 0.991	456.72	50.8
Tuesday, August 02, 2016 13:46:18 0.991	461.67	49.9
Tuesday, August 02, 2016 13:51:19 0.991	466.64	50.6
Tuesday, August 02, 2016 13:56:19 0.991	471.59	50.4
Tuesday, August 02, 2016 14:01:20 0.991	476.56	50.6
Tuesday, August 02, 2016 14:06:21 0.991	481.53	49.8
Tuesday, August 02, 2016 14:11:21 0.991	486.49	51.0
Tuesday, August 02, 2016 14:16:22 0.991	491.46	50.6
Tuesday, August 02, 2016 14:21:22 0.991	496.41	50.6
Tuesday, August 02, 2016 14:26:23 0.991	501.38	50.5
Tuesday, August 02, 2016 14:31:23 0.991	506.33	50.5
Tuesday, August 02, 2016 14:36:24 0.991	511.30	50.8
Tuesday, August 02, 2016 14:41:24 0.991	516.26	49.7
Tuesday, August 02, 2016 14:46:25 0.991	521.23	50.3
Tuesday, August 02, 2016 14:51:26 0.991	526.19	49.9
Tuesday, August 02, 2016 14:56:26 0.991	531.15	50.5
Tuesday, August 02, 2016 15:01:27 0.991	536.12	49.8
Tuesday, August 02, 2016 15:06:27 0.991	541.07	51.0
Tuesday, August 02, 2016 15:11:28 0.991	546.04	50.9
Tuesday, August 02, 2016 15:16:28 0.991	550.99	50.6
Tuesday, August 02, 2016 15:21:29 0.991	555.96	51.1
Tuesday, August 02, 2016 15:26:29 0.991	560.92	50.9
Tuesday, August 02, 2016 15:31:30 0.991	565.89	50.5
Tuesday, August 02, 2016 15:36:30 0.991	570.84	50.3
Tuesday, August 02, 2016 15:41:31 0.991	575.81	49.8
Tuesday, August 02, 2016 15:46:32 0.991	580.78	50.6
Tuesday, August 02, 2016 15:51:32 0.991	585.73	49.8
Tuesday, August 02, 2016 15:56:33 0.991	590.70	50.9
Tuesday, August 02, 2016 16:01:33 0.991	595.65	50.5
Tuesday, August 02, 2016 16:06:34 0.991	600.62	50.6
Tuesday, August 02, 2016 16:11:34 0.991	605.58	50.1
Tuesday, August 02, 2016 16:16:35 0.991	610.55	50.5
Tuesday, August 02, 2016 16:21:35 0.991	615.50	50.8
Tuesday, August 02, 2016 16:26:36 0.991	620.47	50.5
Tuesday, August 02, 2016 16:31:37 0.991	625.44	50.3
Tuesday, August 02, 2016 16:36:37 0.991	630.39	50.2
Tuesday, August 02, 2016 16:41:38 0.991	635.36	50.9
Tuesday, August 02, 2016 16:46:38 0.991	640.32	50.1
Tuesday, August 02, 2016 16:51:39 0.991	645.29	50.6
Tuesday, August 02, 2016 16:56:39 0.991	650.24	50.5
Tuesday, August 02, 2016 17:01:40 0.991	655.21	50.5
Tuesday, August 02, 2016 17:06:41 0.991	660.18	49.8
Tuesday, August 02, 2016 17:11:41 0.991	665.13	51.0
Tuesday, August 02, 2016 17:16:42 0.991	670.10	50.7
Tuesday, August 02, 2016 17:21:42 0.991	675.05	50.4
Tuesday, August 02, 2016 17:26:43 0.991	680.02	50.4
Tuesday, August 02, 2016 17:31:43 0.991	684.98	50.3
Tuesday, August 02, 2016 17:36:44 0.991	689.95	50.5
Tuesday, August 02, 2016 17:41:44 0.991	694.90	50.4

Tuesday, August 02, 2016 17:46:45	0.991	699.87	50.1
Tuesday, August 02, 2016 17:51:46	0.991	704.84	50.9
Tuesday, August 02, 2016 17:56:46	0.991	709.79	49.6
Tuesday, August 02, 2016 18:00:05	0.991	713.08	49.7

aqms5

formaldehyde002

Ch. 2 Cartridge Started Tuesday, August 02, 2016 18:15:02

Flow Rate Set Point 1.00 l/min

Stopped Wednesday, August 03, 2016 6:15:23

Total Volume 712.80 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Tuesday, August 02, 2016 18:15:29	0.080	0.22	50.8
Tuesday, August 02, 2016 18:20:29	0.990	5.18	50.4
Tuesday, August 02, 2016 18:25:30	0.990	10.15	49.9
Tuesday, August 02, 2016 18:30:30	0.990	15.10	50.8
Tuesday, August 02, 2016 18:35:31	0.990	20.06	50.6
Tuesday, August 02, 2016 18:40:31	0.990	25.02	50.5
Tuesday, August 02, 2016 18:45:32	0.990	29.98	50.9
Tuesday, August 02, 2016 18:50:32	0.990	34.93	50.8
Tuesday, August 02, 2016 18:55:33	0.990	39.90	50.1
Tuesday, August 02, 2016 19:00:33	0.990	44.85	50.8
Tuesday, August 02, 2016 19:05:34	0.990	49.82	50.6
Tuesday, August 02, 2016 19:10:35	0.990	54.79	50.9
Tuesday, August 02, 2016 19:15:35	0.990	59.74	50.6
Tuesday, August 02, 2016 19:20:36	0.990	64.71	51.1
Tuesday, August 02, 2016 19:25:36	0.990	69.66	50.4
Tuesday, August 02, 2016 19:30:37	0.990	74.63	50.2
Tuesday, August 02, 2016 19:35:37	0.990	79.58	50.5
Tuesday, August 02, 2016 19:40:38	0.990	84.55	50.1
Tuesday, August 02, 2016 19:45:38	0.990	89.50	50.4
Tuesday, August 02, 2016 19:50:39	0.990	94.47	50.8
Tuesday, August 02, 2016 19:55:39	0.990	99.42	50.2
Tuesday, August 02, 2016 20:00:40	0.990	104.39	49.8
Tuesday, August 02, 2016 20:05:40	0.990	109.34	50.7
Tuesday, August 02, 2016 20:10:41	0.990	114.30	50.3
Tuesday, August 02, 2016 20:15:41	0.990	119.26	50.1
Tuesday, August 02, 2016 20:20:42	0.990	124.22	50.2
Tuesday, August 02, 2016 20:25:42	0.990	129.18	51.0
Tuesday, August 02, 2016 20:30:43	0.990	134.14	50.5
Tuesday, August 02, 2016 20:35:43	0.990	139.09	50.7
Tuesday, August 02, 2016 20:40:44	0.990	144.06	50.1
Tuesday, August 02, 2016 20:45:44	0.990	149.01	50.6
Tuesday, August 02, 2016 20:50:45	0.990	153.98	50.5
Tuesday, August 02, 2016 20:55:45	0.990	158.93	50.9

Tuesday, August 02, 2016 21:00:46 0.990	163.90	50.9
Tuesday, August 02, 2016 21:05:47 0.990	168.87	50.7
Tuesday, August 02, 2016 21:10:47 0.990	173.82	50.1
Tuesday, August 02, 2016 21:15:48 0.990	178.79	50.1
Tuesday, August 02, 2016 21:20:48 0.990	183.74	50.2
Tuesday, August 02, 2016 21:25:49 0.990	188.71	50.3
Tuesday, August 02, 2016 21:30:49 0.990	193.66	50.6
Tuesday, August 02, 2016 21:35:50 0.990	198.63	50.4
Tuesday, August 02, 2016 21:40:50 0.990	203.58	50.5
Tuesday, August 02, 2016 21:45:51 0.990	208.55	49.7
Tuesday, August 02, 2016 21:50:51 0.990	213.50	50.6
Tuesday, August 02, 2016 21:55:52 0.990	218.47	50.1
Tuesday, August 02, 2016 22:00:52 0.990	223.42	50.3
Tuesday, August 02, 2016 22:05:53 0.990	228.39	50.6
Tuesday, August 02, 2016 22:10:53 0.990	233.34	50.5
Tuesday, August 02, 2016 22:15:54 0.990	238.30	50.8
Tuesday, August 02, 2016 22:20:54 0.990	243.26	50.7
Tuesday, August 02, 2016 22:25:55 0.990	248.22	49.8
Tuesday, August 02, 2016 22:30:55 0.990	253.18	49.9
Tuesday, August 02, 2016 22:35:56 0.990	258.14	50.1
Tuesday, August 02, 2016 22:40:56 0.990	263.09	50.9
Tuesday, August 02, 2016 22:45:57 0.990	268.06	50.9
Tuesday, August 02, 2016 22:50:57 0.990	273.01	49.7
Tuesday, August 02, 2016 22:55:58 0.990	277.98	50.7
Tuesday, August 02, 2016 23:00:59 0.990	282.95	50.8
Tuesday, August 02, 2016 23:05:59 0.990	287.90	49.9
Tuesday, August 02, 2016 23:11:00 0.990	292.87	49.8
Tuesday, August 02, 2016 23:16:00 0.990	297.82	50.2
Tuesday, August 02, 2016 23:21:01 0.990	302.79	50.6
Tuesday, August 02, 2016 23:26:01 0.990	307.74	50.1
Tuesday, August 02, 2016 23:31:02 0.990	312.71	50.6
Tuesday, August 02, 2016 23:36:02 0.990	317.66	50.3
Tuesday, August 02, 2016 23:41:03 0.990	322.63	50.6
Tuesday, August 02, 2016 23:46:03 0.990	327.58	49.9
Tuesday, August 02, 2016 23:51:04 0.990	332.54	50.0
Tuesday, August 02, 2016 23:56:04 0.990	337.50	50.3
Wednesday, August 03, 2016 0:01:05 0.990	342.46	50.6
Wednesday, August 03, 2016 0:06:05 0.990	347.41	50.2
Wednesday, August 03, 2016 0:11:06 0.990	352.38	50.5
Wednesday, August 03, 2016 0:16:07 0.990	357.35	50.4
Wednesday, August 03, 2016 0:21:07 0.990	362.30	50.2
Wednesday, August 03, 2016 0:26:08 0.990	367.27	50.4
Wednesday, August 03, 2016 0:31:08 0.990	372.22	50.3
Wednesday, August 03, 2016 0:36:09 0.990	377.19	50.2
Wednesday, August 03, 2016 0:41:09 0.990	382.14	50.2
Wednesday, August 03, 2016 0:46:10 0.990	387.11	50.2
Wednesday, August 03, 2016 0:51:10 0.990	392.06	50.5
Wednesday, August 03, 2016 0:56:11 0.990	397.03	50.5
Wednesday, August 03, 2016 1:01:11 0.990	401.98	50.4
Wednesday, August 03, 2016 1:06:12 0.990	406.95	50.1
Wednesday, August 03, 2016 1:11:12 0.990	411.90	51.0
Wednesday, August 03, 2016 1:16:13 0.990	416.87	50.3
Wednesday, August 03, 2016 1:21:13 0.990	421.82	50.1
Wednesday, August 03, 2016 1:26:14 0.990	426.78	50.5

Wednesday, August 03, 2016 1:31:14 0.990	431.74	50.2
Wednesday, August 03, 2016 1:36:15 0.990	436.70	50.1
Wednesday, August 03, 2016 1:41:15 0.990	441.65	50.6
Wednesday, August 03, 2016 1:46:16 0.990	446.62	50.5
Wednesday, August 03, 2016 1:51:16 0.990	451.57	50.9
Wednesday, August 03, 2016 1:56:17 0.990	456.54	50.1
Wednesday, August 03, 2016 2:01:17 0.990	461.49	49.8
Wednesday, August 03, 2016 2:06:18 0.990	466.46	50.1
Wednesday, August 03, 2016 2:11:18 0.990	471.41	50.3
Wednesday, August 03, 2016 2:16:19 0.990	476.38	50.5
Wednesday, August 03, 2016 2:21:19 0.990	481.33	50.6
Wednesday, August 03, 2016 2:26:20 0.990	486.30	50.4
Wednesday, August 03, 2016 2:31:20 0.990	491.25	50.3
Wednesday, August 03, 2016 2:36:21 0.990	496.22	49.4
Wednesday, August 03, 2016 2:41:21 0.990	501.17	50.4
Wednesday, August 03, 2016 2:46:22 0.990	506.14	50.3
Wednesday, August 03, 2016 2:51:22 0.990	511.09	50.2
Wednesday, August 03, 2016 2:56:23 0.990	516.06	49.8
Wednesday, August 03, 2016 3:01:24 0.990	521.03	50.2
Wednesday, August 03, 2016 3:06:24 0.990	525.98	50.2
Wednesday, August 03, 2016 3:11:25 0.990	530.95	51.0
Wednesday, August 03, 2016 3:16:25 0.990	535.90	50.1
Wednesday, August 03, 2016 3:21:26 0.990	540.87	50.2
Wednesday, August 03, 2016 3:26:26 0.990	545.82	50.6
Wednesday, August 03, 2016 3:31:27 0.990	550.79	51.1
Wednesday, August 03, 2016 3:36:27 0.990	555.74	50.6
Wednesday, August 03, 2016 3:41:28 0.990	560.71	50.8
Wednesday, August 03, 2016 3:46:28 0.990	565.66	50.5
Wednesday, August 03, 2016 3:51:29 0.990	570.63	50.2
Wednesday, August 03, 2016 3:56:29 0.990	575.58	50.6
Wednesday, August 03, 2016 4:01:30 0.990	580.55	50.9
Wednesday, August 03, 2016 4:06:30 0.990	585.50	50.5
Wednesday, August 03, 2016 4:11:31 0.990	590.47	50.5
Wednesday, August 03, 2016 4:16:31 0.990	595.42	50.6
Wednesday, August 03, 2016 4:21:32 0.990	600.39	50.6
Wednesday, August 03, 2016 4:26:32 0.990	605.34	50.4
Wednesday, August 03, 2016 4:31:33 0.990	610.31	50.5
Wednesday, August 03, 2016 4:36:33 0.990	615.26	50.1
Wednesday, August 03, 2016 4:41:34 0.990	620.23	49.8
Wednesday, August 03, 2016 4:46:34 0.990	625.18	50.3
Wednesday, August 03, 2016 4:51:35 0.990	630.15	50.5
Wednesday, August 03, 2016 4:56:35 0.990	635.10	50.9
Wednesday, August 03, 2016 5:01:36 0.990	640.07	50.5
Wednesday, August 03, 2016 5:06:36 0.990	645.02	49.9
Wednesday, August 03, 2016 5:11:37 0.990	649.99	50.5
Wednesday, August 03, 2016 5:16:38 0.990	654.96	50.9
Wednesday, August 03, 2016 5:21:38 0.990	659.91	50.5
Wednesday, August 03, 2016 5:26:39 0.990	664.88	50.1
Wednesday, August 03, 2016 5:31:39 0.990	669.83	50.4
Wednesday, August 03, 2016 5:36:40 0.990	674.80	50.9
Wednesday, August 03, 2016 5:41:40 0.990	679.75	50.5
Wednesday, August 03, 2016 5:46:41 0.990	684.72	49.6
Wednesday, August 03, 2016 5:51:41 0.990	689.67	49.6
Wednesday, August 03, 2016 5:56:42 0.990	694.64	50.8

Wednesday, August 03, 2016 6:01:42 0.990	699.59	50.6
Wednesday, August 03, 2016 6:06:43 0.990	704.56	50.1
Wednesday, August 03, 2016 6:11:43 0.990	709.51	50.1
Wednesday, August 03, 2016 6:15:02 0.990	712.80	51.1

aqms5

formaldehyde001

Ch. 1 Cartridge Started Monday, August 08, 2016 6:00:01

Flow Rate Set Point 1.00 l/min

Stopped Monday, August 08, 2016 18:00:21

Total Volume 713.04 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.003 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Monday, August 08, 2016 6:00:28	0.078	0.23	50.3
Monday, August 08, 2016 6:05:28	0.991	5.18	50.1
Monday, August 08, 2016 6:10:29	0.990	10.15	50.6
Monday, August 08, 2016 6:15:29	0.990	15.10	49.7
Monday, August 08, 2016 6:20:30	0.990	20.07	49.8
Monday, August 08, 2016 6:25:30	0.990	25.02	50.7
Monday, August 08, 2016 6:30:31	0.990	29.99	50.8
Monday, August 08, 2016 6:35:32	0.991	34.96	50.4
Monday, August 08, 2016 6:40:32	0.991	39.91	50.3
Monday, August 08, 2016 6:45:33	0.991	44.88	50.2
Monday, August 08, 2016 6:50:33	0.991	49.84	50.9
Monday, August 08, 2016 6:55:34	0.991	54.80	50.2
Monday, August 08, 2016 7:00:34	0.991	59.76	50.1
Monday, August 08, 2016 7:05:35	0.991	64.73	50.9
Monday, August 08, 2016 7:10:35	0.991	69.68	50.0
Monday, August 08, 2016 7:15:36	0.991	74.65	50.5
Monday, August 08, 2016 7:20:37	0.991	79.62	49.8
Monday, August 08, 2016 7:25:37	0.991	84.57	50.4
Monday, August 08, 2016 7:30:38	0.991	89.54	50.4
Monday, August 08, 2016 7:35:38	0.991	94.49	50.0
Monday, August 08, 2016 7:40:39	0.991	99.46	49.8
Monday, August 08, 2016 7:45:39	0.991	104.42	50.0
Monday, August 08, 2016 7:50:40	0.991	109.39	50.5
Monday, August 08, 2016 7:55:40	0.991	114.34	50.5
Monday, August 08, 2016 8:00:41	0.991	119.31	50.2
Monday, August 08, 2016 8:05:41	0.991	124.26	50.7
Monday, August 08, 2016 8:10:42	0.991	129.23	50.6
Monday, August 08, 2016 8:15:42	0.991	134.19	51.0
Monday, August 08, 2016 8:20:43	0.991	139.16	50.1
Monday, August 08, 2016 8:25:44	0.991	144.13	50.8
Monday, August 08, 2016 8:30:44	0.991	149.08	50.8
Monday, August 08, 2016 8:35:45	0.991	154.05	51.0
Monday, August 08, 2016 8:40:45	0.991	159.00	50.5

Monday, August 08, 2016 8:45:46 0.991	163.97	50.1
Monday, August 08, 2016 8:50:46 0.991	168.92	49.7
Monday, August 08, 2016 8:55:47 0.991	173.89	50.2
Monday, August 08, 2016 9:00:47 0.991	178.85	50.8
Monday, August 08, 2016 9:05:48 0.991	183.82	50.2
Monday, August 08, 2016 9:10:48 0.991	188.77	50.5
Monday, August 08, 2016 9:15:49 0.991	193.74	49.8
Monday, August 08, 2016 9:20:49 0.991	198.69	50.5
Monday, August 08, 2016 9:25:50 0.991	203.66	51.0
Monday, August 08, 2016 9:30:50 0.991	208.62	50.5
Monday, August 08, 2016 9:35:51 0.991	213.59	50.5
Monday, August 08, 2016 9:40:51 0.991	218.54	50.6
Monday, August 08, 2016 9:45:52 0.991	223.51	50.5
Monday, August 08, 2016 9:50:53 0.991	228.48	50.2
Monday, August 08, 2016 9:55:53 0.991	233.43	50.5
Monday, August 08, 2016 10:00:54 0.991	238.40	50.8
Monday, August 08, 2016 10:05:54 0.991	243.36	50.8
Monday, August 08, 2016 10:10:55 0.991	248.33	50.5
Monday, August 08, 2016 10:15:55 0.991	253.28	51.0
Monday, August 08, 2016 10:20:56 0.991	258.25	50.5
Monday, August 08, 2016 10:25:56 0.991	263.20	50.4
Monday, August 08, 2016 10:30:57 0.991	268.17	50.3
Monday, August 08, 2016 10:35:58 0.991	273.14	50.0
Monday, August 08, 2016 10:40:58 0.991	278.10	50.3
Monday, August 08, 2016 10:45:59 0.991	283.07	50.2
Monday, August 08, 2016 10:50:59 0.991	288.02	51.1
Monday, August 08, 2016 10:56:00 0.991	292.99	50.5
Monday, August 08, 2016 11:01:00 0.991	297.94	50.6
Monday, August 08, 2016 11:06:01 0.991	302.91	50.7
Monday, August 08, 2016 11:11:01 0.991	307.87	49.8
Monday, August 08, 2016 11:16:02 0.991	312.84	50.6
Monday, August 08, 2016 11:21:03 0.991	317.81	50.5
Monday, August 08, 2016 11:26:03 0.991	322.76	50.7
Monday, August 08, 2016 11:31:04 0.991	327.73	50.5
Monday, August 08, 2016 11:36:04 0.991	332.68	50.1
Monday, August 08, 2016 11:41:05 0.991	337.65	50.9
Monday, August 08, 2016 11:46:05 0.991	342.61	50.6
Monday, August 08, 2016 11:51:06 0.991	347.58	49.8
Monday, August 08, 2016 11:56:07 0.991	352.55	50.2
Monday, August 08, 2016 12:01:07 0.991	357.50	50.4
Monday, August 08, 2016 12:06:08 0.991	362.47	50.5
Monday, August 08, 2016 12:11:08 0.991	367.42	50.4
Monday, August 08, 2016 12:16:09 0.991	372.39	51.0
Monday, August 08, 2016 12:21:09 0.991	377.35	50.8
Monday, August 08, 2016 12:26:10 0.991	382.32	50.5
Monday, August 08, 2016 12:31:11 0.991	387.29	50.2
Monday, August 08, 2016 12:36:11 0.991	392.24	50.3
Monday, August 08, 2016 12:41:12 0.991	397.21	51.0
Monday, August 08, 2016 12:46:12 0.991	402.17	50.5
Monday, August 08, 2016 12:51:13 0.991	407.14	50.8
Monday, August 08, 2016 12:56:13 0.991	412.09	50.5
Monday, August 08, 2016 13:01:14 0.991	417.06	50.5
Monday, August 08, 2016 13:06:14 0.991	422.01	49.7
Monday, August 08, 2016 13:11:15 0.991	426.98	50.1

Monday, August 08, 2016 13:16:16 0.991	431.95	50.2
Monday, August 08, 2016 13:21:16 0.991	436.91	50.5
Monday, August 08, 2016 13:26:17 0.991	441.88	50.0
Monday, August 08, 2016 13:31:17 0.991	446.83	50.1
Monday, August 08, 2016 13:36:18 0.991	451.80	50.3
Monday, August 08, 2016 13:41:18 0.991	456.75	50.6
Monday, August 08, 2016 13:46:19 0.991	461.72	50.8
Monday, August 08, 2016 13:51:20 0.991	466.69	50.5
Monday, August 08, 2016 13:56:20 0.991	471.65	51.0
Monday, August 08, 2016 14:01:21 0.991	476.62	50.1
Monday, August 08, 2016 14:06:21 0.991	481.57	50.2
Monday, August 08, 2016 14:11:22 0.991	486.54	50.3
Monday, August 08, 2016 14:16:22 0.991	491.50	49.7
Monday, August 08, 2016 14:21:23 0.991	496.47	50.4
Monday, August 08, 2016 14:26:23 0.991	501.42	50.5
Monday, August 08, 2016 14:31:24 0.991	506.39	50.9
Monday, August 08, 2016 14:36:24 0.991	511.34	50.6
Monday, August 08, 2016 14:41:25 0.991	516.31	50.1
Monday, August 08, 2016 14:46:26 0.991	521.28	50.5
Monday, August 08, 2016 14:51:26 0.991	526.24	50.0
Monday, August 08, 2016 14:56:27 0.991	531.21	49.8
Monday, August 08, 2016 15:01:27 0.991	536.16	50.4
Monday, August 08, 2016 15:06:28 0.991	541.13	50.8
Monday, August 08, 2016 15:11:28 0.991	546.08	50.6
Monday, August 08, 2016 15:16:29 0.991	551.05	50.5
Monday, August 08, 2016 15:21:29 0.991	556.00	49.7
Monday, August 08, 2016 15:26:30 0.991	560.97	50.1
Monday, August 08, 2016 15:31:30 0.991	565.93	50.1
Monday, August 08, 2016 15:36:31 0.991	570.90	50.4
Monday, August 08, 2016 15:41:31 0.991	575.85	50.8
Monday, August 08, 2016 15:46:32 0.991	580.82	50.8
Monday, August 08, 2016 15:51:33 0.991	585.79	50.4
Monday, August 08, 2016 15:56:33 0.991	590.74	50.0
Monday, August 08, 2016 16:01:34 0.991	595.71	50.4
Monday, August 08, 2016 16:06:34 0.991	600.67	50.8
Monday, August 08, 2016 16:11:35 0.991	605.63	50.5
Monday, August 08, 2016 16:16:35 0.991	610.59	50.3
Monday, August 08, 2016 16:21:36 0.991	615.56	50.7
Monday, August 08, 2016 16:26:37 0.991	620.53	50.9
Monday, August 08, 2016 16:31:37 0.991	625.48	50.5
Monday, August 08, 2016 16:36:38 0.991	630.45	50.6
Monday, August 08, 2016 16:41:38 0.991	635.40	50.7
Monday, August 08, 2016 16:46:39 0.991	640.37	50.4
Monday, August 08, 2016 16:51:39 0.991	645.33	50.5
Monday, August 08, 2016 16:56:40 0.991	650.30	50.2
Monday, August 08, 2016 17:01:40 0.991	655.25	50.5
Monday, August 08, 2016 17:06:41 0.991	660.22	50.3
Monday, August 08, 2016 17:11:42 0.991	665.19	51.0
Monday, August 08, 2016 17:16:42 0.991	670.14	50.4
Monday, August 08, 2016 17:21:43 0.991	675.11	49.7
Monday, August 08, 2016 17:26:43 0.991	680.06	50.5
Monday, August 08, 2016 17:31:44 0.991	685.03	50.5
Monday, August 08, 2016 17:36:44 0.991	689.99	50.7
Monday, August 08, 2016 17:41:45 0.991	694.96	50.5

Monday, August 08, 2016 17:46:45	0.991	699.91	50.6
Monday, August 08, 2016 17:51:46	0.991	704.88	50.4
Monday, August 08, 2016 17:56:47	0.991	709.85	50.5
Monday, August 08, 2016 18:00:00	0.991	713.04	50.9

aqms5

formaldehyde002

Ch. 2 Cartridge Started Monday, August 08, 2016 18:15:02

Flow Rate Set Point 1.00 l/min

Stopped Tuesday, August 09, 2016 6:15:24

Total Volume 712.81 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Monday, August 08, 2016 18:15:29	0.081	0.22	50.8
Monday, August 08, 2016 18:20:30	0.990	5.19	50.8
Monday, August 08, 2016 18:25:30	0.990	10.15	50.9
Monday, August 08, 2016 18:30:31	0.990	15.11	50.1
Monday, August 08, 2016 18:35:31	0.990	20.06	50.7
Monday, August 08, 2016 18:40:32	0.990	25.03	49.9
Monday, August 08, 2016 18:45:32	0.990	29.98	50.2
Monday, August 08, 2016 18:50:33	0.990	34.95	50.5
Monday, August 08, 2016 18:55:34	0.990	39.92	50.6
Monday, August 08, 2016 19:00:34	0.990	44.87	50.2
Monday, August 08, 2016 19:05:35	0.990	49.84	50.6
Monday, August 08, 2016 19:10:35	0.990	54.79	50.5
Monday, August 08, 2016 19:15:36	0.990	59.76	50.2
Monday, August 08, 2016 19:20:36	0.990	64.71	50.5
Monday, August 08, 2016 19:25:37	0.990	69.68	50.4
Monday, August 08, 2016 19:30:37	0.990	74.63	50.9
Monday, August 08, 2016 19:35:38	0.990	79.60	50.4
Monday, August 08, 2016 19:40:38	0.990	84.55	50.1
Monday, August 08, 2016 19:45:39	0.990	89.51	50.1
Monday, August 08, 2016 19:50:39	0.990	94.47	50.2
Monday, August 08, 2016 19:55:40	0.990	99.43	50.7
Monday, August 08, 2016 20:00:40	0.990	104.39	50.8
Monday, August 08, 2016 20:05:41	0.990	109.35	50.6
Monday, August 08, 2016 20:10:41	0.990	114.30	50.3
Monday, August 08, 2016 20:15:42	0.990	119.27	50.5
Monday, August 08, 2016 20:20:42	0.990	124.22	50.6
Monday, August 08, 2016 20:25:43	0.990	129.19	50.8
Monday, August 08, 2016 20:30:43	0.990	134.14	50.1
Monday, August 08, 2016 20:35:44	0.990	139.11	50.5
Monday, August 08, 2016 20:40:44	0.990	144.06	50.8
Monday, August 08, 2016 20:45:45	0.990	149.03	50.6
Monday, August 08, 2016 20:50:45	0.990	153.98	50.5
Monday, August 08, 2016 20:55:46	0.990	158.95	50.1

Monday, August 08, 2016 21:00:46 0.990	163.90	50.6
Monday, August 08, 2016 21:05:47 0.990	168.87	50.6
Monday, August 08, 2016 21:10:48 0.990	173.84	50.5
Monday, August 08, 2016 21:15:48 0.990	178.79	49.9
Monday, August 08, 2016 21:20:49 0.990	183.76	50.6
Monday, August 08, 2016 21:25:49 0.990	188.71	50.1
Monday, August 08, 2016 21:30:50 0.990	193.68	50.6
Monday, August 08, 2016 21:35:50 0.990	198.63	49.8
Monday, August 08, 2016 21:40:51 0.990	203.60	50.6
Monday, August 08, 2016 21:45:51 0.990	208.55	50.9
Monday, August 08, 2016 21:50:52 0.990	213.52	51.0
Monday, August 08, 2016 21:55:52 0.990	218.47	50.7
Monday, August 08, 2016 22:00:53 0.990	223.43	50.1
Monday, August 08, 2016 22:05:53 0.990	228.39	50.6
Monday, August 08, 2016 22:10:54 0.990	233.35	49.8
Monday, August 08, 2016 22:15:54 0.990	238.31	50.2
Monday, August 08, 2016 22:20:55 0.990	243.27	50.5
Monday, August 08, 2016 22:25:56 0.990	248.24	50.3
Monday, August 08, 2016 22:30:56 0.990	253.19	50.8
Monday, August 08, 2016 22:35:57 0.990	258.16	50.4
Monday, August 08, 2016 22:40:57 0.990	263.11	50.3
Monday, August 08, 2016 22:45:58 0.990	268.08	49.9
Monday, August 08, 2016 22:50:58 0.990	273.03	50.6
Monday, August 08, 2016 22:55:59 0.990	278.00	50.2
Monday, August 08, 2016 23:00:59 0.990	282.95	50.5
Monday, August 08, 2016 23:06:00 0.990	287.92	50.9
Monday, August 08, 2016 23:11:00 0.990	292.87	50.4
Monday, August 08, 2016 23:16:01 0.990	297.84	50.9
Monday, August 08, 2016 23:21:01 0.990	302.79	49.7
Monday, August 08, 2016 23:26:02 0.990	307.76	50.5
Monday, August 08, 2016 23:31:02 0.990	312.71	50.2
Monday, August 08, 2016 23:36:03 0.990	317.68	50.1
Monday, August 08, 2016 23:41:03 0.990	322.63	50.5
Monday, August 08, 2016 23:46:04 0.990	327.60	50.8
Monday, August 08, 2016 23:51:04 0.990	332.55	50.2
Monday, August 08, 2016 23:56:05 0.990	337.51	50.9
Tuesday, August 09, 2016 0:01:05 0.990	342.47	50.5
Tuesday, August 09, 2016 0:06:06 0.990	347.43	50.6
Tuesday, August 09, 2016 0:11:06 0.990	352.39	50.1
Tuesday, August 09, 2016 0:16:07 0.990	357.35	50.2
Tuesday, August 09, 2016 0:21:07 0.990	362.31	51.0
Tuesday, August 09, 2016 0:26:08 0.990	367.27	50.5
Tuesday, August 09, 2016 0:31:08 0.990	372.22	50.2
Tuesday, August 09, 2016 0:36:09 0.990	377.19	50.5
Tuesday, August 09, 2016 0:41:09 0.990	382.14	51.0
Tuesday, August 09, 2016 0:46:10 0.990	387.11	50.2
Tuesday, August 09, 2016 0:51:11 0.990	392.08	50.6
Tuesday, August 09, 2016 0:56:11 0.990	397.03	50.5
Tuesday, August 09, 2016 1:01:12 0.990	402.00	50.4
Tuesday, August 09, 2016 1:06:12 0.990	406.95	50.1
Tuesday, August 09, 2016 1:11:13 0.990	411.92	50.2
Tuesday, August 09, 2016 1:16:13 0.990	416.87	51.0
Tuesday, August 09, 2016 1:21:14 0.990	421.84	50.1
Tuesday, August 09, 2016 1:26:14 0.990	426.79	50.6

Tuesday, August 09, 2016 1:31:15 0.990	431.76	50.6
Tuesday, August 09, 2016 1:36:15 0.990	436.71	50.6
Tuesday, August 09, 2016 1:41:16 0.990	441.68	51.0
Tuesday, August 09, 2016 1:46:16 0.990	446.63	50.9
Tuesday, August 09, 2016 1:51:17 0.990	451.60	50.8
Tuesday, August 09, 2016 1:56:17 0.990	456.55	51.0
Tuesday, August 09, 2016 2:01:18 0.990	461.52	50.4
Tuesday, August 09, 2016 2:06:18 0.990	466.47	50.2
Tuesday, August 09, 2016 2:11:19 0.990	471.44	50.6
Tuesday, August 09, 2016 2:16:19 0.990	476.39	50.5
Tuesday, August 09, 2016 2:21:20 0.990	481.35	50.9
Tuesday, August 09, 2016 2:26:20 0.990	486.31	50.1
Tuesday, August 09, 2016 2:31:21 0.990	491.27	50.5
Tuesday, August 09, 2016 2:36:21 0.990	496.23	50.5
Tuesday, August 09, 2016 2:41:22 0.990	501.19	50.5
Tuesday, August 09, 2016 2:46:22 0.990	506.15	50.9
Tuesday, August 09, 2016 2:51:23 0.990	511.11	51.0
Tuesday, August 09, 2016 2:56:23 0.990	516.06	50.5
Tuesday, August 09, 2016 3:01:24 0.990	521.03	50.9
Tuesday, August 09, 2016 3:06:25 0.990	526.00	50.1
Tuesday, August 09, 2016 3:11:25 0.990	530.95	50.1
Tuesday, August 09, 2016 3:16:26 0.990	535.92	50.3
Tuesday, August 09, 2016 3:21:26 0.990	540.87	50.9
Tuesday, August 09, 2016 3:26:27 0.990	545.84	51.2
Tuesday, August 09, 2016 3:31:27 0.990	550.79	51.1
Tuesday, August 09, 2016 3:36:28 0.990	555.76	50.1
Tuesday, August 09, 2016 3:41:28 0.990	560.71	50.2
Tuesday, August 09, 2016 3:46:29 0.990	565.68	50.5
Tuesday, August 09, 2016 3:51:29 0.990	570.63	50.2
Tuesday, August 09, 2016 3:56:30 0.990	575.60	50.4
Tuesday, August 09, 2016 4:01:30 0.990	580.55	50.3
Tuesday, August 09, 2016 4:06:31 0.990	585.52	50.5
Tuesday, August 09, 2016 4:11:31 0.990	590.47	50.4
Tuesday, August 09, 2016 4:16:32 0.990	595.44	50.1
Tuesday, August 09, 2016 4:21:32 0.990	600.39	50.1
Tuesday, August 09, 2016 4:26:33 0.990	605.36	50.9
Tuesday, August 09, 2016 4:31:33 0.990	610.31	49.8
Tuesday, August 09, 2016 4:36:34 0.990	615.28	50.5
Tuesday, August 09, 2016 4:41:34 0.990	620.24	50.8
Tuesday, August 09, 2016 4:46:35 0.990	625.20	50.8
Tuesday, August 09, 2016 4:51:36 0.990	630.17	50.6
Tuesday, August 09, 2016 4:56:36 0.990	635.12	50.4
Tuesday, August 09, 2016 5:01:37 0.990	640.09	50.9
Tuesday, August 09, 2016 5:06:37 0.990	645.04	50.8
Tuesday, August 09, 2016 5:11:38 0.990	650.01	50.6
Tuesday, August 09, 2016 5:16:38 0.990	654.96	50.6
Tuesday, August 09, 2016 5:21:39 0.990	659.93	50.6
Tuesday, August 09, 2016 5:26:39 0.990	664.88	50.9
Tuesday, August 09, 2016 5:31:40 0.990	669.85	50.2
Tuesday, August 09, 2016 5:36:40 0.990	674.80	50.5
Tuesday, August 09, 2016 5:41:41 0.990	679.77	50.9
Tuesday, August 09, 2016 5:46:41 0.990	684.73	50.0
Tuesday, August 09, 2016 5:51:42 0.990	689.69	50.5
Tuesday, August 09, 2016 5:56:42 0.990	694.65	50.6

Tuesday, August 09, 2016 6:01:43	0.990	699.61	50.2
Tuesday, August 09, 2016 6:06:43	0.990	704.57	51.1
Tuesday, August 09, 2016 6:11:44	0.990	709.53	50.6
Tuesday, August 09, 2016 6:15:02	0.990	712.80	50.2

aqms5

formaldehyde001

Ch. 1 Cartridge Started Sunday, August 14, 2016 6:00:02

Flow Rate Set Point 1.00 l/min

Stopped Sunday, August 14, 2016 18:00:24

Total Volume 713.07 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.003 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Sunday, August 14, 2016 6:00:29	0.078	0.23	50.3
Sunday, August 14, 2016 6:05:30	0.991	5.20	50.4
Sunday, August 14, 2016 6:10:30	0.990	10.15	50.5
Sunday, August 14, 2016 6:15:31	0.990	15.12	50.7
Sunday, August 14, 2016 6:20:32	0.991	20.09	49.6
Sunday, August 14, 2016 6:25:32	0.990	25.04	50.4
Sunday, August 14, 2016 6:30:33	0.991	30.01	50.0
Sunday, August 14, 2016 6:35:33	0.991	34.96	50.6
Sunday, August 14, 2016 6:40:34	0.991	39.93	50.3
Sunday, August 14, 2016 6:45:34	0.991	44.88	50.5
Sunday, August 14, 2016 6:50:35	0.991	49.85	50.9
Sunday, August 14, 2016 6:55:35	0.991	54.81	50.5
Sunday, August 14, 2016 7:00:36	0.991	59.78	50.5
Sunday, August 14, 2016 7:05:36	0.991	64.73	50.4
Sunday, August 14, 2016 7:10:37	0.991	69.70	50.4
Sunday, August 14, 2016 7:15:37	0.991	74.65	50.5
Sunday, August 14, 2016 7:20:38	0.991	79.62	50.4
Sunday, August 14, 2016 7:25:39	0.991	84.59	50.6
Sunday, August 14, 2016 7:30:39	0.991	89.54	50.1
Sunday, August 14, 2016 7:35:40	0.991	94.51	50.6
Sunday, August 14, 2016 7:40:40	0.991	99.47	50.6
Sunday, August 14, 2016 7:45:41	0.991	104.44	50.6
Sunday, August 14, 2016 7:50:41	0.991	109.39	50.6
Sunday, August 14, 2016 7:55:42	0.991	114.36	50.6
Sunday, August 14, 2016 8:00:43	0.991	119.33	50.1
Sunday, August 14, 2016 8:05:43	0.991	124.28	50.3
Sunday, August 14, 2016 8:10:44	0.991	129.25	50.4
Sunday, August 14, 2016 8:15:44	0.991	134.21	50.6
Sunday, August 14, 2016 8:20:45	0.991	139.18	50.7
Sunday, August 14, 2016 8:25:46	0.991	144.15	50.5
Sunday, August 14, 2016 8:30:46	0.991	149.10	50.1
Sunday, August 14, 2016 8:35:47	0.991	154.07	50.9
Sunday, August 14, 2016 8:40:47	0.991	159.02	49.7

Sunday, August 14, 2016 8:45:48 0.991	163.99	50.1
Sunday, August 14, 2016 8:50:48 0.991	168.95	50.1
Sunday, August 14, 2016 8:55:49 0.991	173.92	50.9
Sunday, August 14, 2016 9:00:49 0.991	178.87	50.5
Sunday, August 14, 2016 9:05:50 0.991	183.84	50.4
Sunday, August 14, 2016 9:10:51 0.991	188.81	50.5
Sunday, August 14, 2016 9:15:51 0.991	193.76	50.5
Sunday, August 14, 2016 9:20:52 0.991	198.73	50.5
Sunday, August 14, 2016 9:25:52 0.991	203.69	50.1
Sunday, August 14, 2016 9:30:53 0.991	208.66	50.0
Sunday, August 14, 2016 9:35:53 0.991	213.61	50.7
Sunday, August 14, 2016 9:40:54 0.991	218.58	50.0
Sunday, August 14, 2016 9:45:55 0.991	223.55	50.7
Sunday, August 14, 2016 9:50:55 0.991	228.50	50.4
Sunday, August 14, 2016 9:55:56 0.991	233.47	50.4
Sunday, August 14, 2016 10:00:56 0.991	238.43	50.3
Sunday, August 14, 2016 10:05:57 0.991	243.40	50.8
Sunday, August 14, 2016 10:10:57 0.991	248.35	49.8
Sunday, August 14, 2016 10:15:58 0.991	253.32	50.4
Sunday, August 14, 2016 10:20:58 0.991	258.27	50.6
Sunday, August 14, 2016 10:25:59 0.991	263.24	50.2
Sunday, August 14, 2016 10:31:00 0.991	268.21	50.8
Sunday, August 14, 2016 10:36:00 0.991	273.17	50.6
Sunday, August 14, 2016 10:41:01 0.991	278.14	50.3
Sunday, August 14, 2016 10:46:01 0.991	283.09	49.9
Sunday, August 14, 2016 10:51:02 0.991	288.06	50.4
Sunday, August 14, 2016 10:56:02 0.991	293.01	49.9
Sunday, August 14, 2016 11:01:03 0.991	297.98	50.8
Sunday, August 14, 2016 11:06:03 0.991	302.94	50.4
Sunday, August 14, 2016 11:11:04 0.991	307.91	50.7
Sunday, August 14, 2016 11:16:04 0.991	312.86	50.8
Sunday, August 14, 2016 11:21:05 0.991	317.83	50.8
Sunday, August 14, 2016 11:26:05 0.991	322.79	50.6
Sunday, August 14, 2016 11:31:06 0.991	327.76	50.1
Sunday, August 14, 2016 11:36:07 0.991	332.73	50.5
Sunday, August 14, 2016 11:41:07 0.991	337.68	50.6
Sunday, August 14, 2016 11:46:08 0.991	342.65	50.5
Sunday, August 14, 2016 11:51:08 0.991	347.60	50.7
Sunday, August 14, 2016 11:56:09 0.991	352.57	50.7
Sunday, August 14, 2016 12:01:09 0.991	357.53	50.5
Sunday, August 14, 2016 12:06:10 0.991	362.50	49.8
Sunday, August 14, 2016 12:11:10 0.991	367.45	50.6
Sunday, August 14, 2016 12:16:11 0.991	372.42	50.2
Sunday, August 14, 2016 12:21:11 0.991	377.37	50.6
Sunday, August 14, 2016 12:26:12 0.991	382.34	50.7
Sunday, August 14, 2016 12:31:12 0.991	387.30	50.3
Sunday, August 14, 2016 12:36:13 0.991	392.27	50.0
Sunday, August 14, 2016 12:41:13 0.991	397.22	50.4
Sunday, August 14, 2016 12:46:14 0.991	402.19	50.3
Sunday, August 14, 2016 12:51:14 0.991	407.14	50.5
Sunday, August 14, 2016 12:56:15 0.991	412.11	50.2
Sunday, August 14, 2016 13:01:15 0.991	417.07	49.9
Sunday, August 14, 2016 13:06:16 0.991	422.04	50.6
Sunday, August 14, 2016 13:11:16 0.991	426.99	50.1

Sunday, August 14, 2016 13:16:17 0.991	431.96	50.5
Sunday, August 14, 2016 13:21:17 0.991	436.92	50.4
Sunday, August 14, 2016 13:26:18 0.991	441.89	50.4
Sunday, August 14, 2016 13:31:18 0.991	446.84	50.1
Sunday, August 14, 2016 13:36:18 0.991	451.79	50.6
Sunday, August 14, 2016 13:41:19 0.991	456.76	50.4
Sunday, August 14, 2016 13:46:19 0.991	461.72	50.5
Sunday, August 14, 2016 13:51:20 0.991	466.69	50.5
Sunday, August 14, 2016 13:56:20 0.991	471.64	50.5
Sunday, August 14, 2016 14:01:21 0.991	476.61	50.0
Sunday, August 14, 2016 14:06:21 0.991	481.56	50.3
Sunday, August 14, 2016 14:11:22 0.991	486.53	50.6
Sunday, August 14, 2016 14:16:22 0.991	491.49	50.0
Sunday, August 14, 2016 14:21:23 0.991	496.46	50.5
Sunday, August 14, 2016 14:26:23 0.991	501.41	50.5
Sunday, August 14, 2016 14:31:24 0.991	506.38	50.6
Sunday, August 14, 2016 14:36:24 0.991	511.33	50.3
Sunday, August 14, 2016 14:41:25 0.991	516.30	50.5
Sunday, August 14, 2016 14:46:25 0.991	521.26	50.3
Sunday, August 14, 2016 14:51:26 0.991	526.23	50.3
Sunday, August 14, 2016 14:56:26 0.991	531.18	50.3
Sunday, August 14, 2016 15:01:27 0.991	536.15	50.6
Sunday, August 14, 2016 15:06:27 0.991	541.10	50.6
Sunday, August 14, 2016 15:11:28 0.991	546.07	50.7
Sunday, August 14, 2016 15:16:29 0.991	551.04	50.6
Sunday, August 14, 2016 15:21:29 0.991	556.00	50.5
Sunday, August 14, 2016 15:26:29 0.991	560.95	50.4
Sunday, August 14, 2016 15:31:30 0.991	565.92	50.7
Sunday, August 14, 2016 15:36:30 0.991	570.87	50.5
Sunday, August 14, 2016 15:41:31 0.991	575.84	50.7
Sunday, August 14, 2016 15:46:31 0.991	580.79	50.4
Sunday, August 14, 2016 15:51:32 0.991	585.76	50.3
Sunday, August 14, 2016 15:56:32 0.991	590.72	50.6
Sunday, August 14, 2016 16:01:33 0.991	595.69	50.4
Sunday, August 14, 2016 16:06:33 0.991	600.64	50.4
Sunday, August 14, 2016 16:11:34 0.991	605.61	50.4
Sunday, August 14, 2016 16:16:34 0.991	610.56	50.5
Sunday, August 14, 2016 16:21:35 0.991	615.53	50.6
Sunday, August 14, 2016 16:26:35 0.991	620.49	50.6
Sunday, August 14, 2016 16:31:36 0.991	625.46	50.5
Sunday, August 14, 2016 16:36:36 0.991	630.41	50.5
Sunday, August 14, 2016 16:41:37 0.991	635.38	50.4
Sunday, August 14, 2016 16:46:37 0.991	640.33	50.2
Sunday, August 14, 2016 16:51:38 0.991	645.30	50.2
Sunday, August 14, 2016 16:56:38 0.991	650.25	50.2
Sunday, August 14, 2016 17:01:38 0.991	655.21	50.3
Sunday, August 14, 2016 17:06:39 0.991	660.18	50.2
Sunday, August 14, 2016 17:11:39 0.991	665.13	50.5
Sunday, August 14, 2016 17:16:40 0.991	670.10	50.5
Sunday, August 14, 2016 17:21:40 0.991	675.05	49.7
Sunday, August 14, 2016 17:26:41 0.991	680.02	50.4
Sunday, August 14, 2016 17:31:41 0.991	684.98	50.5
Sunday, August 14, 2016 17:36:42 0.991	689.95	50.5
Sunday, August 14, 2016 17:41:42 0.991	694.90	50.7

Sunday, August 14, 2016 17:46:43	0.991	699.87	50.1
Sunday, August 14, 2016 17:51:43	0.991	704.82	50.3
Sunday, August 14, 2016 17:56:44	0.991	709.79	50.4
Sunday, August 14, 2016 18:00:02	0.991	713.06	50.4

aqms5

formaldehyde002

Ch. 2 Cartridge Started Sunday, August 14, 2016 18:15:04

Flow Rate Set Point 1.00 l/min

Stopped Monday, August 15, 2016 6:15:26

Total Volume 712.83 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Sunday, August 14, 2016 18:15:31	0.080	0.22	50.5
Sunday, August 14, 2016 18:20:32	0.990	5.19	50.5
Sunday, August 14, 2016 18:25:32	0.990	10.15	50.5
Sunday, August 14, 2016 18:30:33	0.990	15.11	50.2
Sunday, August 14, 2016 18:35:33	0.990	20.06	49.7
Sunday, August 14, 2016 18:40:34	0.990	25.03	50.2
Sunday, August 14, 2016 18:45:34	0.990	29.98	50.7
Sunday, August 14, 2016 18:50:35	0.990	34.95	50.5
Sunday, August 14, 2016 18:55:35	0.990	39.90	50.4
Sunday, August 14, 2016 19:00:36	0.990	44.87	50.1
Sunday, August 14, 2016 19:05:36	0.990	49.82	50.5
Sunday, August 14, 2016 19:10:36	0.990	54.77	50.5
Sunday, August 14, 2016 19:15:37	0.990	59.74	50.4
Sunday, August 14, 2016 19:20:37	0.990	64.69	50.3
Sunday, August 14, 2016 19:25:37	0.990	69.64	50.5
Sunday, August 14, 2016 19:30:38	0.990	74.61	50.4
Sunday, August 14, 2016 19:35:38	0.990	79.56	50.1
Sunday, August 14, 2016 19:40:39	0.990	84.53	50.2
Sunday, August 14, 2016 19:45:39	0.990	89.48	50.3
Sunday, August 14, 2016 19:50:39	0.990	94.43	50.3
Sunday, August 14, 2016 19:55:40	0.990	99.40	50.2
Sunday, August 14, 2016 20:00:40	0.990	104.35	50.1
Sunday, August 14, 2016 20:05:40	0.990	109.30	50.3
Sunday, August 14, 2016 20:10:41	0.990	114.27	50.3
Sunday, August 14, 2016 20:15:41	0.990	119.22	50.5
Sunday, August 14, 2016 20:20:41	0.990	124.17	50.5
Sunday, August 14, 2016 20:25:42	0.990	129.14	50.1
Sunday, August 14, 2016 20:30:42	0.990	134.09	50.5
Sunday, August 14, 2016 20:35:43	0.990	139.06	50.6
Sunday, August 14, 2016 20:40:43	0.990	144.01	50.2
Sunday, August 14, 2016 20:45:43	0.990	148.96	49.7
Sunday, August 14, 2016 20:50:44	0.990	153.93	50.4
Sunday, August 14, 2016 20:55:44	0.990	158.88	50.5

Sunday, August 14, 2016 21:00:45 0.990	163.85	50.5
Sunday, August 14, 2016 21:05:45 0.990	168.80	50.2
Sunday, August 14, 2016 21:10:46 0.990	173.77	50.3
Sunday, August 14, 2016 21:15:46 0.990	178.72	50.8
Sunday, August 14, 2016 21:20:47 0.990	183.69	50.1
Sunday, August 14, 2016 21:25:47 0.990	188.64	50.8
Sunday, August 14, 2016 21:30:47 0.990	193.59	50.5
Sunday, August 14, 2016 21:35:48 0.990	198.56	50.7
Sunday, August 14, 2016 21:40:48 0.990	203.51	49.7
Sunday, August 14, 2016 21:45:49 0.990	208.48	50.8
Sunday, August 14, 2016 21:50:49 0.990	213.43	50.1
Sunday, August 14, 2016 21:55:50 0.990	218.40	50.6
Sunday, August 14, 2016 22:00:50 0.990	223.35	49.9
Sunday, August 14, 2016 22:05:51 0.990	228.32	49.8
Sunday, August 14, 2016 22:10:51 0.990	233.27	50.8
Sunday, August 14, 2016 22:15:52 0.990	238.24	50.9
Sunday, August 14, 2016 22:20:52 0.990	243.19	50.2
Sunday, August 14, 2016 22:25:53 0.990	248.16	50.5
Sunday, August 14, 2016 22:30:53 0.990	253.11	50.8
Sunday, August 14, 2016 22:35:54 0.990	258.08	50.3
Sunday, August 14, 2016 22:40:54 0.990	263.03	50.5
Sunday, August 14, 2016 22:45:55 0.990	268.00	51.0
Sunday, August 14, 2016 22:50:55 0.990	272.95	50.3
Sunday, August 14, 2016 22:55:56 0.990	277.92	50.5
Sunday, August 14, 2016 23:00:56 0.990	282.87	50.9
Sunday, August 14, 2016 23:05:57 0.990	287.84	50.8
Sunday, August 14, 2016 23:10:57 0.990	292.79	50.8
Sunday, August 14, 2016 23:15:58 0.990	297.76	50.8
Sunday, August 14, 2016 23:20:58 0.990	302.71	50.8
Sunday, August 14, 2016 23:25:59 0.990	307.68	50.5
Sunday, August 14, 2016 23:30:59 0.990	312.63	50.1
Sunday, August 14, 2016 23:36:00 0.990	317.60	50.1
Sunday, August 14, 2016 23:41:01 0.990	322.56	50.5
Sunday, August 14, 2016 23:46:01 0.990	327.51	50.3
Sunday, August 14, 2016 23:51:02 0.990	332.48	50.4
Sunday, August 14, 2016 23:56:02 0.990	337.43	50.0
Monday, August 15, 2016 0:01:03 0.990	342.40	50.5
Monday, August 15, 2016 0:06:03 0.990	347.35	49.4
Monday, August 15, 2016 0:11:04 0.990	352.32	50.3
Monday, August 15, 2016 0:16:04 0.990	357.27	50.8
Monday, August 15, 2016 0:21:05 0.990	362.24	50.6
Monday, August 15, 2016 0:26:05 0.990	367.19	50.9
Monday, August 15, 2016 0:31:06 0.990	372.16	50.8
Monday, August 15, 2016 0:36:06 0.990	377.11	50.9
Monday, August 15, 2016 0:41:07 0.990	382.08	50.8
Monday, August 15, 2016 0:46:07 0.990	387.03	49.9
Monday, August 15, 2016 0:51:08 0.990	392.00	50.2
Monday, August 15, 2016 0:56:08 0.990	396.95	51.0
Monday, August 15, 2016 1:01:09 0.990	401.92	50.6
Monday, August 15, 2016 1:06:09 0.990	406.87	50.1
Monday, August 15, 2016 1:11:10 0.990	411.84	50.4
Monday, August 15, 2016 1:16:10 0.990	416.79	50.1
Monday, August 15, 2016 1:21:11 0.990	421.76	50.5
Monday, August 15, 2016 1:26:11 0.990	426.71	50.5

Monday, August 15, 2016 1:31:12 0.990	431.68	50.1
Monday, August 15, 2016 1:36:12 0.990	436.63	50.1
Monday, August 15, 2016 1:41:13 0.990	441.60	50.2
Monday, August 15, 2016 1:46:13 0.990	446.55	50.6
Monday, August 15, 2016 1:51:14 0.990	451.52	50.1
Monday, August 15, 2016 1:56:14 0.990	456.47	50.6
Monday, August 15, 2016 2:01:15 0.990	461.44	50.6
Monday, August 15, 2016 2:06:15 0.990	466.39	50.5
Monday, August 15, 2016 2:11:16 0.990	471.35	50.2
Monday, August 15, 2016 2:16:16 0.990	476.31	50.3
Monday, August 15, 2016 2:21:17 0.990	481.27	50.6
Monday, August 15, 2016 2:26:17 0.990	486.23	49.9
Monday, August 15, 2016 2:31:18 0.990	491.19	50.6
Monday, August 15, 2016 2:36:18 0.990	496.15	50.1
Monday, August 15, 2016 2:41:19 0.990	501.11	49.8
Monday, August 15, 2016 2:46:20 0.990	506.08	50.4
Monday, August 15, 2016 2:51:20 0.990	511.03	50.2
Monday, August 15, 2016 2:56:21 0.990	516.00	51.0
Monday, August 15, 2016 3:01:21 0.990	520.95	51.0
Monday, August 15, 2016 3:06:22 0.990	525.92	50.8
Monday, August 15, 2016 3:11:22 0.990	530.87	50.1
Monday, August 15, 2016 3:16:23 0.990	535.84	50.9
Monday, August 15, 2016 3:21:23 0.990	540.79	50.9
Monday, August 15, 2016 3:26:24 0.990	545.76	50.2
Monday, August 15, 2016 3:31:24 0.990	550.71	50.5
Monday, August 15, 2016 3:36:25 0.990	555.68	49.4
Monday, August 15, 2016 3:41:25 0.990	560.63	50.2
Monday, August 15, 2016 3:46:26 0.990	565.60	50.0
Monday, August 15, 2016 3:51:26 0.990	570.55	50.6
Monday, August 15, 2016 3:56:27 0.990	575.52	50.8
Monday, August 15, 2016 4:01:27 0.990	580.47	49.2
Monday, August 15, 2016 4:06:28 0.990	585.44	50.1
Monday, August 15, 2016 4:11:28 0.990	590.39	50.5
Monday, August 15, 2016 4:16:29 0.990	595.36	50.0
Monday, August 15, 2016 4:21:29 0.990	600.31	50.5
Monday, August 15, 2016 4:26:30 0.990	605.28	50.5
Monday, August 15, 2016 4:31:30 0.990	610.24	50.5
Monday, August 15, 2016 4:36:31 0.990	615.20	50.4
Monday, August 15, 2016 4:41:31 0.990	620.16	50.1
Monday, August 15, 2016 4:46:32 0.990	625.12	50.2
Monday, August 15, 2016 4:51:32 0.990	630.08	50.9
Monday, August 15, 2016 4:56:33 0.990	635.04	50.2
Monday, August 15, 2016 5:01:33 0.990	640.00	50.1
Monday, August 15, 2016 5:06:34 0.990	644.96	50.6
Monday, August 15, 2016 5:11:34 0.990	649.92	50.8
Monday, August 15, 2016 5:16:35 0.990	654.88	49.8
Monday, August 15, 2016 5:21:36 0.990	659.85	50.8
Monday, August 15, 2016 5:26:36 0.990	664.80	50.9
Monday, August 15, 2016 5:31:37 0.990	669.77	50.9
Monday, August 15, 2016 5:36:37 0.990	674.73	49.7
Monday, August 15, 2016 5:41:38 0.990	679.69	50.0
Monday, August 15, 2016 5:46:38 0.990	684.65	49.8
Monday, August 15, 2016 5:51:39 0.990	689.61	51.0
Monday, August 15, 2016 5:56:39 0.990	694.57	50.3

Monday, August 15, 2016 6:01:40	0.990	699.53	50.6
Monday, August 15, 2016 6:06:40	0.990	704.49	51.0
Monday, August 15, 2016 6:11:41	0.990	709.45	50.8
Monday, August 15, 2016 6:15:05	0.990	712.82	50.9

aqms5

formaldehyde001

Ch. 1 Cartridge Started Saturday, August 20, 2016 6:00:02

Flow Rate Set Point 1.00 l/min

Stopped Saturday, August 20, 2016 18:00:25

Total Volume 713.10 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.002 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Saturday, August 20, 2016 6:00:29	0.078	0.23	50.4
Saturday, August 20, 2016 6:05:29	0.991	5.18	50.4
Saturday, August 20, 2016 6:10:29	0.990	10.13	50.2
Saturday, August 20, 2016 6:15:30	0.991	15.10	49.9
Saturday, August 20, 2016 6:20:31	0.991	20.07	50.1
Saturday, August 20, 2016 6:25:31	0.991	25.02	50.7
Saturday, August 20, 2016 6:30:32	0.990	29.99	50.1
Saturday, August 20, 2016 6:35:32	0.991	34.95	50.1
Saturday, August 20, 2016 6:40:33	0.991	39.91	50.2
Saturday, August 20, 2016 6:45:33	0.991	44.87	50.5
Saturday, August 20, 2016 6:50:34	0.991	49.84	50.7
Saturday, August 20, 2016 6:55:34	0.991	54.79	50.5
Saturday, August 20, 2016 7:00:35	0.991	59.76	50.4
Saturday, August 20, 2016 7:05:35	0.991	64.71	50.1
Saturday, August 20, 2016 7:10:36	0.991	69.68	50.1
Saturday, August 20, 2016 7:15:36	0.991	74.63	50.9
Saturday, August 20, 2016 7:20:37	0.991	79.60	50.8
Saturday, August 20, 2016 7:25:37	0.991	84.56	50.2
Saturday, August 20, 2016 7:30:38	0.991	89.53	50.1
Saturday, August 20, 2016 7:35:39	0.991	94.50	50.3
Saturday, August 20, 2016 7:40:39	0.991	99.45	50.5
Saturday, August 20, 2016 7:45:40	0.991	104.42	51.1
Saturday, August 20, 2016 7:50:40	0.991	109.37	50.8
Saturday, August 20, 2016 7:55:41	0.991	114.34	50.4
Saturday, August 20, 2016 8:00:41	0.991	119.30	50.1
Saturday, August 20, 2016 8:05:42	0.991	124.27	50.5
Saturday, August 20, 2016 8:10:42	0.991	129.22	49.7
Saturday, August 20, 2016 8:15:43	0.991	134.19	50.8
Saturday, August 20, 2016 8:20:43	0.991	139.14	50.5
Saturday, August 20, 2016 8:25:44	0.991	144.11	50.9
Saturday, August 20, 2016 8:30:45	0.991	149.08	50.3
Saturday, August 20, 2016 8:35:45	0.991	154.04	50.2
Saturday, August 20, 2016 8:40:46	0.991	159.01	50.2

Saturday, August 20, 2016 8:45:46 0.991	163.96	50.8
Saturday, August 20, 2016 8:50:47 0.991	168.93	50.9
Saturday, August 20, 2016 8:55:47 0.991	173.88	50.6
Saturday, August 20, 2016 9:00:48 0.991	178.85	50.9
Saturday, August 20, 2016 9:05:48 0.991	183.81	50.5
Saturday, August 20, 2016 9:10:49 0.991	188.78	50.8
Saturday, August 20, 2016 9:15:49 0.991	193.73	50.3
Saturday, August 20, 2016 9:20:50 0.991	198.70	50.7
Saturday, August 20, 2016 9:25:50 0.991	203.65	50.1
Saturday, August 20, 2016 9:30:51 0.991	208.62	51.0
Saturday, August 20, 2016 9:35:52 0.991	213.59	50.1
Saturday, August 20, 2016 9:40:52 0.991	218.54	50.7
Saturday, August 20, 2016 9:45:53 0.991	223.51	50.0
Saturday, August 20, 2016 9:50:53 0.991	228.47	50.8
Saturday, August 20, 2016 9:55:54 0.991	233.44	49.8
Saturday, August 20, 2016 10:00:54 0.991	238.39	50.0
Saturday, August 20, 2016 10:05:55 0.991	243.36	50.2
Saturday, August 20, 2016 10:10:55 0.991	248.31	50.6
Saturday, August 20, 2016 10:15:56 0.991	253.28	50.9
Saturday, August 20, 2016 10:20:56 0.991	258.24	50.5
Saturday, August 20, 2016 10:25:57 0.991	263.21	50.5
Saturday, August 20, 2016 10:30:57 0.991	268.16	50.3
Saturday, August 20, 2016 10:35:58 0.991	273.13	50.5
Saturday, August 20, 2016 10:40:59 0.991	278.10	50.5
Saturday, August 20, 2016 10:45:59 0.991	283.05	49.7
Saturday, August 20, 2016 10:51:00 0.991	288.02	50.7
Saturday, August 20, 2016 10:56:00 0.991	292.98	50.2
Saturday, August 20, 2016 11:01:01 0.991	297.95	49.8
Saturday, August 20, 2016 11:06:01 0.991	302.90	50.9
Saturday, August 20, 2016 11:11:02 0.991	307.87	50.5
Saturday, August 20, 2016 11:16:02 0.991	312.83	50.6
Saturday, August 20, 2016 11:21:03 0.991	317.80	50.5
Saturday, August 20, 2016 11:26:03 0.991	322.75	50.6
Saturday, August 20, 2016 11:31:04 0.991	327.72	50.4
Saturday, August 20, 2016 11:36:05 0.991	332.69	50.1
Saturday, August 20, 2016 11:41:05 0.991	337.64	50.2
Saturday, August 20, 2016 11:46:06 0.991	342.61	51.0
Saturday, August 20, 2016 11:51:06 0.991	347.57	50.7
Saturday, August 20, 2016 11:56:07 0.991	352.54	50.6
Saturday, August 20, 2016 12:01:07 0.991	357.49	50.6
Saturday, August 20, 2016 12:06:08 0.991	362.46	50.4
Saturday, August 20, 2016 12:11:08 0.991	367.41	51.1
Saturday, August 20, 2016 12:16:09 0.991	372.38	50.1
Saturday, August 20, 2016 12:21:09 0.991	377.34	50.5
Saturday, August 20, 2016 12:26:10 0.991	382.31	50.8
Saturday, August 20, 2016 12:31:11 0.991	387.28	50.6
Saturday, August 20, 2016 12:36:11 0.991	392.23	50.5
Saturday, August 20, 2016 12:41:12 0.991	397.20	50.4
Saturday, August 20, 2016 12:46:12 0.991	402.15	50.1
Saturday, August 20, 2016 12:51:13 0.991	407.12	50.6
Saturday, August 20, 2016 12:56:13 0.991	412.08	50.4
Saturday, August 20, 2016 13:01:14 0.991	417.05	50.8
Saturday, August 20, 2016 13:06:14 0.991	422.00	50.6
Saturday, August 20, 2016 13:11:15 0.991	426.97	49.6

Saturday, August 20, 2016 13:16:15 0.991	431.92	50.1
Saturday, August 20, 2016 13:21:16 0.991	436.89	50.5
Saturday, August 20, 2016 13:26:16 0.991	441.85	50.4
Saturday, August 20, 2016 13:31:17 0.991	446.82	50.4
Saturday, August 20, 2016 13:36:17 0.991	451.77	50.6
Saturday, August 20, 2016 13:41:18 0.991	456.74	50.8
Saturday, August 20, 2016 13:46:18 0.991	461.70	50.7
Saturday, August 20, 2016 13:51:19 0.991	466.67	50.6
Saturday, August 20, 2016 13:56:19 0.991	471.62	51.0
Saturday, August 20, 2016 14:01:20 0.991	476.59	51.0
Saturday, August 20, 2016 14:06:20 0.991	481.54	50.2
Saturday, August 20, 2016 14:11:21 0.991	486.51	50.8
Saturday, August 20, 2016 14:16:22 0.991	491.48	49.7
Saturday, August 20, 2016 14:21:22 0.991	496.44	50.5
Saturday, August 20, 2016 14:26:23 0.991	501.41	50.4
Saturday, August 20, 2016 14:31:23 0.991	506.36	50.1
Saturday, August 20, 2016 14:36:24 0.991	511.33	51.0
Saturday, August 20, 2016 14:41:24 0.991	516.28	50.6
Saturday, August 20, 2016 14:46:25 0.991	521.25	50.9
Saturday, August 20, 2016 14:51:25 0.991	526.21	50.4
Saturday, August 20, 2016 14:56:26 0.991	531.18	50.3
Saturday, August 20, 2016 15:01:26 0.991	536.13	50.7
Saturday, August 20, 2016 15:06:27 0.991	541.10	50.5
Saturday, August 20, 2016 15:11:28 0.991	546.07	50.4
Saturday, August 20, 2016 15:16:28 0.991	551.02	51.2
Saturday, August 20, 2016 15:21:29 0.991	555.99	50.1
Saturday, August 20, 2016 15:26:29 0.991	560.95	50.4
Saturday, August 20, 2016 15:31:30 0.991	565.91	50.9
Saturday, August 20, 2016 15:36:30 0.991	570.87	50.1
Saturday, August 20, 2016 15:41:31 0.991	575.84	50.9
Saturday, August 20, 2016 15:46:31 0.991	580.79	50.1
Saturday, August 20, 2016 15:51:32 0.991	585.76	50.2
Saturday, August 20, 2016 15:56:32 0.991	590.71	50.4
Saturday, August 20, 2016 16:01:33 0.991	595.68	50.9
Saturday, August 20, 2016 16:06:33 0.991	600.64	50.5
Saturday, August 20, 2016 16:11:34 0.991	605.61	50.1
Saturday, August 20, 2016 16:16:35 0.991	610.58	50.5
Saturday, August 20, 2016 16:21:35 0.991	615.53	50.0
Saturday, August 20, 2016 16:26:36 0.991	620.50	50.5
Saturday, August 20, 2016 16:31:36 0.991	625.45	50.1
Saturday, August 20, 2016 16:36:37 0.991	630.42	50.4
Saturday, August 20, 2016 16:41:37 0.991	635.37	50.5
Saturday, August 20, 2016 16:46:38 0.991	640.34	50.9
Saturday, August 20, 2016 16:51:38 0.991	645.30	50.9
Saturday, August 20, 2016 16:56:39 0.991	650.27	50.6
Saturday, August 20, 2016 17:01:40 0.991	655.24	50.5
Saturday, August 20, 2016 17:06:40 0.991	660.19	50.6
Saturday, August 20, 2016 17:11:41 0.991	665.16	50.4
Saturday, August 20, 2016 17:16:41 0.991	670.11	50.1
Saturday, August 20, 2016 17:21:42 0.991	675.08	51.0
Saturday, August 20, 2016 17:26:42 0.991	680.04	49.5
Saturday, August 20, 2016 17:31:43 0.991	685.01	50.0
Saturday, August 20, 2016 17:36:43 0.991	689.96	50.8
Saturday, August 20, 2016 17:41:44 0.991	694.93	50.4

Saturday, August 20, 2016 17:46:44	0.991	699.88	49.8
Saturday, August 20, 2016 17:51:45	0.991	704.85	49.9
Saturday, August 20, 2016 17:56:45	0.991	709.81	50.5
Saturday, August 20, 2016 18:00:04	0.991	713.09	50.5

aqms5

formaldehyde002

Ch. 2 Cartridge Started Saturday, August 20, 2016 18:15:01

Flow Rate Set Point 1.00 l/min

Stopped Sunday, August 21, 2016 6:15:21

Total Volume 712.79 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
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Saturday, August 20, 2016 18:15:28	0.080	0.22	50.5
Saturday, August 20, 2016 18:20:28	0.990	5.18	50.7
Saturday, August 20, 2016 18:25:29	0.990	10.14	50.1
Saturday, August 20, 2016 18:30:30	0.990	15.11	49.7
Saturday, August 20, 2016 18:35:30	0.990	20.06	50.9
Saturday, August 20, 2016 18:40:30	0.990	25.01	50.5
Saturday, August 20, 2016 18:45:31	0.990	29.98	49.8
Saturday, August 20, 2016 18:50:31	0.990	34.93	50.8
Saturday, August 20, 2016 18:55:32	0.990	39.90	50.0
Saturday, August 20, 2016 19:00:32	0.990	44.85	50.5
Saturday, August 20, 2016 19:05:33	0.990	49.82	50.6
Saturday, August 20, 2016 19:10:33	0.990	54.77	50.6
Saturday, August 20, 2016 19:15:34	0.990	59.74	50.4
Saturday, August 20, 2016 19:20:34	0.990	64.69	50.1
Saturday, August 20, 2016 19:25:35	0.990	69.66	50.7
Saturday, August 20, 2016 19:30:35	0.990	74.61	50.5
Saturday, August 20, 2016 19:35:36	0.990	79.58	50.8
Saturday, August 20, 2016 19:40:36	0.990	84.53	51.1
Saturday, August 20, 2016 19:45:37	0.990	89.50	49.8
Saturday, August 20, 2016 19:50:37	0.990	94.45	50.3
Saturday, August 20, 2016 19:55:38	0.990	99.42	50.2
Saturday, August 20, 2016 20:00:39	0.990	104.38	51.1
Saturday, August 20, 2016 20:05:39	0.990	109.34	50.3
Saturday, August 20, 2016 20:10:40	0.990	114.30	50.1
Saturday, August 20, 2016 20:15:40	0.990	119.25	50.6
Saturday, August 20, 2016 20:20:41	0.990	124.22	50.5
Saturday, August 20, 2016 20:25:41	0.990	129.17	49.8
Saturday, August 20, 2016 20:30:42	0.990	134.14	50.4
Saturday, August 20, 2016 20:35:42	0.990	139.09	50.4
Saturday, August 20, 2016 20:40:43	0.990	144.06	50.1
Saturday, August 20, 2016 20:45:43	0.990	149.01	50.9
Saturday, August 20, 2016 20:50:44	0.990	153.98	51.0
Saturday, August 20, 2016 20:55:44	0.990	158.93	51.2

Saturday, August 20, 2016 21:00:45 0.990	163.90	49.8
Saturday, August 20, 2016 21:05:45 0.990	168.85	50.7
Saturday, August 20, 2016 21:10:46 0.990	173.82	50.5
Saturday, August 20, 2016 21:15:46 0.990	178.77	50.9
Saturday, August 20, 2016 21:20:47 0.990	183.74	49.8
Saturday, August 20, 2016 21:25:47 0.990	188.69	51.1
Saturday, August 20, 2016 21:30:48 0.990	193.66	50.6
Saturday, August 20, 2016 21:35:48 0.990	198.61	50.4
Saturday, August 20, 2016 21:40:49 0.990	203.58	49.9
Saturday, August 20, 2016 21:45:49 0.990	208.53	50.9
Saturday, August 20, 2016 21:50:50 0.990	213.50	49.8
Saturday, August 20, 2016 21:55:50 0.990	218.45	49.8
Saturday, August 20, 2016 22:00:51 0.990	223.42	50.1
Saturday, August 20, 2016 22:05:51 0.990	228.37	50.6
Saturday, August 20, 2016 22:10:52 0.990	233.33	50.2
Saturday, August 20, 2016 22:15:52 0.990	238.29	50.0
Saturday, August 20, 2016 22:20:53 0.990	243.25	49.5
Saturday, August 20, 2016 22:25:53 0.990	248.21	50.6
Saturday, August 20, 2016 22:30:54 0.990	253.17	50.5
Saturday, August 20, 2016 22:35:54 0.990	258.12	50.5
Saturday, August 20, 2016 22:40:55 0.990	263.09	50.4
Saturday, August 20, 2016 22:45:55 0.990	268.04	50.4
Saturday, August 20, 2016 22:50:56 0.990	273.01	50.7
Saturday, August 20, 2016 22:55:56 0.990	277.96	51.1
Saturday, August 20, 2016 23:00:57 0.990	282.93	50.3
Saturday, August 20, 2016 23:05:57 0.990	287.88	50.6
Saturday, August 20, 2016 23:10:58 0.990	292.85	50.3
Saturday, August 20, 2016 23:15:58 0.990	297.80	49.7
Saturday, August 20, 2016 23:20:59 0.990	302.77	50.1
Saturday, August 20, 2016 23:25:59 0.990	307.72	50.6
Saturday, August 20, 2016 23:31:00 0.990	312.69	49.9
Saturday, August 20, 2016 23:36:01 0.990	317.65	50.3
Saturday, August 20, 2016 23:41:01 0.990	322.61	50.9
Saturday, August 20, 2016 23:46:02 0.990	327.57	50.2
Saturday, August 20, 2016 23:51:02 0.990	332.53	51.1
Saturday, August 20, 2016 23:56:03 0.990	337.49	50.5
Sunday, August 21, 2016 0:01:03 0.990	342.44	51.2
Sunday, August 21, 2016 0:06:04 0.990	347.41	50.6
Sunday, August 21, 2016 0:11:04 0.990	352.36	50.4
Sunday, August 21, 2016 0:16:05 0.990	357.33	50.2
Sunday, August 21, 2016 0:21:05 0.990	362.28	50.7
Sunday, August 21, 2016 0:26:06 0.990	367.25	50.6
Sunday, August 21, 2016 0:31:06 0.990	372.20	50.7
Sunday, August 21, 2016 0:36:07 0.990	377.17	50.6
Sunday, August 21, 2016 0:41:07 0.990	382.12	50.3
Sunday, August 21, 2016 0:46:08 0.990	387.09	51.0
Sunday, August 21, 2016 0:51:08 0.990	392.04	50.1
Sunday, August 21, 2016 0:56:09 0.990	397.01	50.2
Sunday, August 21, 2016 1:01:09 0.990	401.96	50.7
Sunday, August 21, 2016 1:06:10 0.990	406.93	50.1
Sunday, August 21, 2016 1:11:10 0.990	411.88	50.2
Sunday, August 21, 2016 1:16:11 0.990	416.85	50.2
Sunday, August 21, 2016 1:21:11 0.990	421.80	50.5
Sunday, August 21, 2016 1:26:12 0.990	426.77	51.0

Sunday, August 21, 2016 1:31:12 0.990	431.72	50.6
Sunday, August 21, 2016 1:36:13 0.990	436.69	50.4
Sunday, August 21, 2016 1:41:13 0.990	441.64	50.6
Sunday, August 21, 2016 1:46:14 0.990	446.61	50.5
Sunday, August 21, 2016 1:51:14 0.990	451.56	50.1
Sunday, August 21, 2016 1:56:15 0.990	456.52	50.1
Sunday, August 21, 2016 2:01:15 0.990	461.48	50.4
Sunday, August 21, 2016 2:06:16 0.990	466.44	50.1
Sunday, August 21, 2016 2:11:16 0.990	471.40	49.7
Sunday, August 21, 2016 2:16:17 0.990	476.36	51.0
Sunday, August 21, 2016 2:21:17 0.990	481.31	50.5
Sunday, August 21, 2016 2:26:18 0.990	486.28	50.5
Sunday, August 21, 2016 2:31:18 0.990	491.23	50.2
Sunday, August 21, 2016 2:36:19 0.990	496.20	50.4
Sunday, August 21, 2016 2:41:19 0.990	501.15	50.3
Sunday, August 21, 2016 2:46:20 0.990	506.12	49.7
Sunday, August 21, 2016 2:51:20 0.990	511.07	49.6
Sunday, August 21, 2016 2:56:21 0.990	516.04	51.0
Sunday, August 21, 2016 3:01:22 0.990	521.01	50.9
Sunday, August 21, 2016 3:06:22 0.990	525.96	50.5
Sunday, August 21, 2016 3:11:22 0.990	530.91	50.1
Sunday, August 21, 2016 3:16:23 0.990	535.88	50.6
Sunday, August 21, 2016 3:21:23 0.990	540.83	50.5
Sunday, August 21, 2016 3:26:24 0.990	545.80	50.5
Sunday, August 21, 2016 3:31:25 0.990	550.77	50.6
Sunday, August 21, 2016 3:36:25 0.990	555.72	50.5
Sunday, August 21, 2016 3:41:26 0.990	560.69	50.5
Sunday, August 21, 2016 3:46:26 0.990	565.64	49.9
Sunday, August 21, 2016 3:51:27 0.990	570.61	49.5
Sunday, August 21, 2016 3:56:27 0.990	575.56	51.2
Sunday, August 21, 2016 4:01:28 0.990	580.53	50.5
Sunday, August 21, 2016 4:06:28 0.990	585.48	50.5
Sunday, August 21, 2016 4:11:29 0.990	590.45	50.6
Sunday, August 21, 2016 4:16:29 0.990	595.40	50.5
Sunday, August 21, 2016 4:21:30 0.990	600.37	50.9
Sunday, August 21, 2016 4:26:30 0.990	605.32	50.5
Sunday, August 21, 2016 4:31:31 0.990	610.29	51.0
Sunday, August 21, 2016 4:36:31 0.990	615.24	50.3
Sunday, August 21, 2016 4:41:32 0.990	620.21	50.3
Sunday, August 21, 2016 4:46:32 0.990	625.16	50.9
Sunday, August 21, 2016 4:51:33 0.990	630.13	50.7
Sunday, August 21, 2016 4:56:33 0.990	635.08	49.9
Sunday, August 21, 2016 5:01:34 0.990	640.05	51.0
Sunday, August 21, 2016 5:06:34 0.990	645.00	49.7
Sunday, August 21, 2016 5:11:35 0.990	649.97	50.5
Sunday, August 21, 2016 5:16:35 0.990	654.92	49.8
Sunday, August 21, 2016 5:21:36 0.990	659.89	50.2
Sunday, August 21, 2016 5:26:36 0.990	664.84	50.5
Sunday, August 21, 2016 5:31:37 0.990	669.81	50.6
Sunday, August 21, 2016 5:36:37 0.990	674.76	50.9
Sunday, August 21, 2016 5:41:38 0.990	679.73	50.2
Sunday, August 21, 2016 5:46:39 0.990	684.68	50.6
Sunday, August 21, 2016 5:51:39 0.990	689.65	50.5
Sunday, August 21, 2016 5:56:40 0.990	694.62	50.6

Sunday, August 21, 2016 6:01:40	0.990	699.57	50.9
Sunday, August 21, 2016 6:06:40	0.990	704.53	50.1
Sunday, August 21, 2016 6:11:41	0.990	709.49	49.7
Sunday, August 21, 2016 6:15:00	0.990	712.78	50.5

aqms5

formaldehyde001

Ch. 1 Cartridge Started Friday, August 26, 2016 6:00:00

Flow Rate Set Point 1.00 l/min

Stopped Friday, August 26, 2016 18:00:26

Total Volume 713.13 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.002 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Friday, August 26, 2016 6:00:27	0.078	0.23	49.6
Friday, August 26, 2016 6:05:27	0.991	5.18	50.4
Friday, August 26, 2016 6:10:28	0.991	10.15	50.6
Friday, August 26, 2016 6:15:28	0.990	15.10	50.5
Friday, August 26, 2016 6:20:29	0.990	20.07	49.9
Friday, August 26, 2016 6:25:29	0.990	25.02	50.4
Friday, August 26, 2016 6:30:30	0.990	29.99	50.5
Friday, August 26, 2016 6:35:30	0.991	34.94	50.4
Friday, August 26, 2016 6:40:31	0.991	39.91	50.8
Friday, August 26, 2016 6:45:31	0.991	44.87	50.1
Friday, August 26, 2016 6:50:32	0.991	49.84	50.8
Friday, August 26, 2016 6:55:32	0.991	54.79	50.5
Friday, August 26, 2016 7:00:33	0.991	59.76	51.0
Friday, August 26, 2016 7:05:34	0.991	64.73	51.2
Friday, August 26, 2016 7:10:34	0.991	69.68	50.9
Friday, August 26, 2016 7:15:35	0.991	74.65	50.7
Friday, August 26, 2016 7:20:35	0.991	79.60	50.5
Friday, August 26, 2016 7:25:36	0.991	84.57	50.8
Friday, August 26, 2016 7:30:36	0.991	89.53	50.8
Friday, August 26, 2016 7:35:37	0.991	94.50	50.0
Friday, August 26, 2016 7:40:37	0.991	99.45	50.4
Friday, August 26, 2016 7:45:38	0.991	104.42	50.5
Friday, August 26, 2016 7:50:39	0.991	109.39	50.1
Friday, August 26, 2016 7:55:39	0.991	114.34	50.6
Friday, August 26, 2016 8:00:40	0.991	119.31	50.1
Friday, August 26, 2016 8:05:40	0.991	124.26	50.9
Friday, August 26, 2016 8:10:41	0.991	129.23	50.1
Friday, August 26, 2016 8:15:41	0.991	134.19	49.8
Friday, August 26, 2016 8:20:42	0.991	139.16	50.5
Friday, August 26, 2016 8:25:42	0.991	144.11	50.5
Friday, August 26, 2016 8:30:43	0.991	149.08	50.2
Friday, August 26, 2016 8:35:44	0.991	154.05	50.2
Friday, August 26, 2016 8:40:44	0.991	159.00	50.2

Friday, August 26, 2016 8:45:45 0.991	163.97	50.8
Friday, August 26, 2016 8:50:45 0.991	168.93	50.9
Friday, August 26, 2016 8:55:46 0.991	173.90	50.5
Friday, August 26, 2016 9:00:46 0.991	178.85	50.2
Friday, August 26, 2016 9:05:47 0.991	183.82	50.6
Friday, August 26, 2016 9:10:47 0.991	188.77	50.4
Friday, August 26, 2016 9:15:48 0.991	193.74	50.5
Friday, August 26, 2016 9:20:48 0.991	198.70	50.8
Friday, August 26, 2016 9:25:49 0.991	203.67	50.4
Friday, August 26, 2016 9:30:49 0.991	208.62	50.9
Friday, August 26, 2016 9:35:50 0.991	213.59	50.5
Friday, August 26, 2016 9:40:50 0.991	218.54	50.5
Friday, August 26, 2016 9:45:51 0.991	223.51	49.7
Friday, August 26, 2016 9:50:52 0.991	228.48	50.2
Friday, August 26, 2016 9:55:52 0.991	233.44	50.9
Friday, August 26, 2016 10:00:53 0.991	238.41	49.7
Friday, August 26, 2016 10:05:53 0.991	243.36	50.2
Friday, August 26, 2016 10:10:54 0.991	248.33	50.7
Friday, August 26, 2016 10:15:54 0.991	253.28	50.4
Friday, August 26, 2016 10:20:55 0.991	258.25	51.0
Friday, August 26, 2016 10:25:55 0.991	263.21	50.8
Friday, August 26, 2016 10:30:56 0.991	268.18	50.3
Friday, August 26, 2016 10:35:56 0.991	273.13	51.0
Friday, August 26, 2016 10:40:57 0.991	278.10	50.5
Friday, August 26, 2016 10:45:57 0.991	283.05	50.7
Friday, August 26, 2016 10:50:58 0.991	288.02	50.0
Friday, August 26, 2016 10:55:58 0.991	292.98	50.8
Friday, August 26, 2016 11:00:59 0.991	297.95	50.6
Friday, August 26, 2016 11:06:00 0.991	302.92	50.6
Friday, August 26, 2016 11:11:00 0.991	307.87	50.1
Friday, August 26, 2016 11:16:01 0.991	312.84	50.2
Friday, August 26, 2016 11:21:01 0.991	317.79	50.5
Friday, August 26, 2016 11:26:02 0.991	322.76	50.4
Friday, August 26, 2016 11:31:02 0.991	327.72	50.9
Friday, August 26, 2016 11:36:03 0.991	332.69	49.8
Friday, August 26, 2016 11:41:03 0.991	337.64	50.1
Friday, August 26, 2016 11:46:04 0.991	342.61	50.7
Friday, August 26, 2016 11:51:05 0.991	347.58	50.4
Friday, August 26, 2016 11:56:05 0.991	352.53	50.2
Friday, August 26, 2016 12:01:06 0.991	357.50	50.1
Friday, August 26, 2016 12:06:06 0.991	362.46	50.9
Friday, August 26, 2016 12:11:07 0.991	367.43	50.5
Friday, August 26, 2016 12:16:07 0.991	372.38	50.2
Friday, August 26, 2016 12:21:08 0.991	377.35	50.4
Friday, August 26, 2016 12:26:08 0.991	382.31	50.4
Friday, August 26, 2016 12:31:09 0.991	387.28	50.9
Friday, August 26, 2016 12:36:10 0.991	392.25	50.2
Friday, August 26, 2016 12:41:10 0.991	397.20	50.7
Friday, August 26, 2016 12:46:11 0.991	402.17	50.3
Friday, August 26, 2016 12:51:11 0.991	407.12	50.1
Friday, August 26, 2016 12:56:12 0.991	412.09	50.9
Friday, August 26, 2016 13:01:12 0.991	417.05	50.7
Friday, August 26, 2016 13:06:13 0.991	422.02	50.1
Friday, August 26, 2016 13:11:13 0.991	426.97	50.4

Friday, August 26, 2016 13:16:14 0.991	431.94	50.8
Friday, August 26, 2016 13:21:14 0.991	436.89	50.2
Friday, August 26, 2016 13:26:15 0.991	441.86	50.8
Friday, August 26, 2016 13:31:16 0.991	446.84	50.7
Friday, August 26, 2016 13:36:16 0.991	451.79	50.3
Friday, August 26, 2016 13:41:17 0.991	456.76	50.5
Friday, August 26, 2016 13:46:17 0.991	461.71	50.3
Friday, August 26, 2016 13:51:18 0.991	466.68	50.0
Friday, August 26, 2016 13:56:18 0.991	471.64	50.9
Friday, August 26, 2016 14:01:19 0.991	476.61	50.6
Friday, August 26, 2016 14:06:19 0.991	481.56	50.8
Friday, August 26, 2016 14:11:20 0.991	486.53	50.4
Friday, August 26, 2016 14:16:20 0.991	491.48	50.8
Friday, August 26, 2016 14:21:21 0.991	496.46	50.2
Friday, August 26, 2016 14:26:21 0.991	501.41	50.5
Friday, August 26, 2016 14:31:22 0.991	506.38	50.5
Friday, August 26, 2016 14:36:22 0.991	511.33	50.5
Friday, August 26, 2016 14:41:23 0.991	516.30	50.3
Friday, August 26, 2016 14:46:23 0.991	521.26	50.6
Friday, August 26, 2016 14:51:24 0.991	526.23	50.2
Friday, August 26, 2016 14:56:24 0.991	531.18	50.5
Friday, August 26, 2016 15:01:25 0.991	536.15	49.7
Friday, August 26, 2016 15:06:25 0.991	541.10	50.3
Friday, August 26, 2016 15:11:26 0.991	546.07	50.4
Friday, August 26, 2016 15:16:26 0.991	551.02	50.5
Friday, August 26, 2016 15:21:27 0.991	555.99	50.4
Friday, August 26, 2016 15:26:27 0.991	560.95	50.2
Friday, August 26, 2016 15:31:28 0.991	565.92	50.5
Friday, August 26, 2016 15:36:28 0.991	570.87	50.5
Friday, August 26, 2016 15:41:29 0.991	575.84	50.6
Friday, August 26, 2016 15:46:29 0.991	580.79	50.7
Friday, August 26, 2016 15:51:30 0.991	585.76	50.6
Friday, August 26, 2016 15:56:30 0.991	590.72	50.1
Friday, August 26, 2016 16:01:31 0.991	595.69	50.5
Friday, August 26, 2016 16:06:31 0.991	600.64	50.4
Friday, August 26, 2016 16:11:32 0.991	605.61	50.1
Friday, August 26, 2016 16:16:32 0.991	610.56	50.6
Friday, August 26, 2016 16:21:33 0.991	615.53	50.4
Friday, August 26, 2016 16:26:33 0.991	620.49	50.6
Friday, August 26, 2016 16:31:33 0.991	625.44	50.5
Friday, August 26, 2016 16:36:34 0.991	630.41	50.5
Friday, August 26, 2016 16:41:34 0.991	635.36	50.1
Friday, August 26, 2016 16:46:35 0.991	640.33	50.6
Friday, August 26, 2016 16:51:35 0.991	645.28	50.5
Friday, August 26, 2016 16:56:36 0.991	650.25	50.6
Friday, August 26, 2016 17:01:36 0.991	655.21	50.5
Friday, August 26, 2016 17:06:37 0.991	660.18	50.4
Friday, August 26, 2016 17:11:37 0.991	665.13	50.1
Friday, August 26, 2016 17:16:37 0.991	670.08	50.2
Friday, August 26, 2016 17:21:38 0.991	675.05	50.1
Friday, August 26, 2016 17:26:38 0.991	680.01	50.5
Friday, August 26, 2016 17:31:38 0.991	684.96	49.8
Friday, August 26, 2016 17:36:39 0.991	689.93	50.4
Friday, August 26, 2016 17:41:39 0.991	694.88	50.2

Friday, August 26, 2016 17:46:40 0.991	699.85	50.1
Friday, August 26, 2016 17:51:40 0.991	704.80	50.4
Friday, August 26, 2016 17:56:40 0.991	709.76	50.1
Friday, August 26, 2016 18:00:04 0.991	713.13	50.5

aqms5

formaldehyde002

Ch. 2 Cartridge Started Friday, August 26, 2016 18:15:01

Flow Rate Set Point 1.00 l/min

Stopped Saturday, August 27, 2016 6:15:23

Total Volume 712.81 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.003 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Friday, August 26, 2016 18:15:28	0.081	0.22	50.8
Friday, August 26, 2016 18:20:29	0.990	5.19	50.5
Friday, August 26, 2016 18:25:29	0.990	10.15	51.0
Friday, August 26, 2016 18:30:30	0.990	15.11	50.6
Friday, August 26, 2016 18:35:30	0.990	20.06	50.7
Friday, August 26, 2016 18:40:31	0.990	25.03	50.6
Friday, August 26, 2016 18:45:31	0.990	29.98	50.5
Friday, August 26, 2016 18:50:32	0.990	34.95	50.5
Friday, August 26, 2016 18:55:32	0.990	39.90	50.5
Friday, August 26, 2016 19:00:32	0.990	44.85	50.1
Friday, August 26, 2016 19:05:33	0.990	49.82	50.5
Friday, August 26, 2016 19:10:33	0.990	54.77	50.2
Friday, August 26, 2016 19:15:33	0.990	59.72	50.1
Friday, August 26, 2016 19:20:34	0.990	64.69	50.5
Friday, August 26, 2016 19:25:34	0.990	69.64	50.5
Friday, August 26, 2016 19:30:35	0.990	74.61	50.5
Friday, August 26, 2016 19:35:35	0.990	79.56	50.5
Friday, August 26, 2016 19:40:35	0.990	84.51	50.5
Friday, August 26, 2016 19:45:36	0.990	89.48	50.5
Friday, August 26, 2016 19:50:36	0.990	94.43	50.5
Friday, August 26, 2016 19:55:36	0.990	99.38	50.1
Friday, August 26, 2016 20:00:37	0.990	104.35	49.6
Friday, August 26, 2016 20:05:37	0.990	109.30	50.1
Friday, August 26, 2016 20:10:38	0.990	114.27	50.5
Friday, August 26, 2016 20:15:38	0.990	119.22	50.5
Friday, August 26, 2016 20:20:38	0.990	124.17	50.5
Friday, August 26, 2016 20:25:39	0.990	129.14	50.5
Friday, August 26, 2016 20:30:39	0.990	134.09	50.5
Friday, August 26, 2016 20:35:40	0.990	139.06	50.5
Friday, August 26, 2016 20:40:40	0.990	144.01	50.4
Friday, August 26, 2016 20:45:40	0.990	148.96	50.5
Friday, August 26, 2016 20:50:41	0.990	153.93	50.2
Friday, August 26, 2016 20:55:41	0.990	158.88	50.2

Friday, August 26, 2016 21:00:42 0.990	163.85	50.5
Friday, August 26, 2016 21:05:42 0.990	168.80	50.5
Friday, August 26, 2016 21:10:43 0.990	173.77	50.5
Friday, August 26, 2016 21:15:43 0.990	178.72	50.1
Friday, August 26, 2016 21:20:43 0.990	183.67	50.3
Friday, August 26, 2016 21:25:44 0.990	188.64	50.5
Friday, August 26, 2016 21:30:44 0.990	193.59	50.5
Friday, August 26, 2016 21:35:45 0.990	198.56	50.3
Friday, August 26, 2016 21:40:45 0.990	203.51	50.7
Friday, August 26, 2016 21:45:46 0.990	208.48	50.2
Friday, August 26, 2016 21:50:46 0.990	213.43	50.4
Friday, August 26, 2016 21:55:47 0.990	218.40	50.0
Friday, August 26, 2016 22:00:47 0.990	223.35	50.3
Friday, August 26, 2016 22:05:48 0.990	228.32	50.6
Friday, August 26, 2016 22:10:48 0.990	233.27	50.4
Friday, August 26, 2016 22:15:49 0.990	238.24	50.6
Friday, August 26, 2016 22:20:49 0.990	243.19	50.5
Friday, August 26, 2016 22:25:50 0.990	248.16	50.8
Friday, August 26, 2016 22:30:50 0.990	253.11	50.8
Friday, August 26, 2016 22:35:51 0.990	258.08	50.6
Friday, August 26, 2016 22:40:51 0.990	263.03	50.9
Friday, August 26, 2016 22:45:52 0.990	268.00	50.9
Friday, August 26, 2016 22:50:52 0.990	272.95	50.6
Friday, August 26, 2016 22:55:53 0.990	277.92	50.6
Friday, August 26, 2016 23:00:53 0.990	282.87	50.7
Friday, August 26, 2016 23:05:54 0.990	287.84	50.5
Friday, August 26, 2016 23:10:54 0.990	292.79	50.5
Friday, August 26, 2016 23:15:55 0.990	297.76	50.7
Friday, August 26, 2016 23:20:55 0.990	302.71	50.8
Friday, August 26, 2016 23:25:56 0.990	307.68	50.4
Friday, August 26, 2016 23:30:56 0.990	312.63	50.4
Friday, August 26, 2016 23:35:57 0.990	317.60	50.7
Friday, August 26, 2016 23:40:57 0.990	322.55	49.8
Friday, August 26, 2016 23:45:57 0.990	327.50	50.7
Friday, August 26, 2016 23:50:58 0.990	332.47	50.3
Friday, August 26, 2016 23:55:58 0.990	337.42	50.1
Saturday, August 27, 2016 0:00:59 0.990	342.39	50.9
Saturday, August 27, 2016 0:05:59 0.990	347.34	50.5
Saturday, August 27, 2016 0:11:00 0.990	352.31	50.1
Saturday, August 27, 2016 0:16:00 0.990	357.26	50.5
Saturday, August 27, 2016 0:21:01 0.990	362.23	50.5
Saturday, August 27, 2016 0:26:02 0.990	367.19	50.2
Saturday, August 27, 2016 0:31:02 0.990	372.15	50.7
Saturday, August 27, 2016 0:36:03 0.990	377.11	50.6
Saturday, August 27, 2016 0:41:03 0.990	382.06	51.0
Saturday, August 27, 2016 0:46:04 0.990	387.03	50.4
Saturday, August 27, 2016 0:51:04 0.990	391.98	50.9
Saturday, August 27, 2016 0:56:05 0.990	396.95	50.2
Saturday, August 27, 2016 1:01:05 0.990	401.90	50.6
Saturday, August 27, 2016 1:06:06 0.990	406.87	50.8
Saturday, August 27, 2016 1:11:06 0.990	411.82	50.8
Saturday, August 27, 2016 1:16:07 0.990	416.79	51.1
Saturday, August 27, 2016 1:21:07 0.990	421.74	50.2
Saturday, August 27, 2016 1:26:08 0.990	426.71	51.0

Saturday, August 27, 2016 1:31:08 0.990	431.66	50.6
Saturday, August 27, 2016 1:36:09 0.990	436.63	50.8
Saturday, August 27, 2016 1:41:09 0.990	441.58	50.9
Saturday, August 27, 2016 1:46:10 0.990	446.55	50.2
Saturday, August 27, 2016 1:51:10 0.990	451.50	50.5
Saturday, August 27, 2016 1:56:11 0.990	456.47	50.7
Saturday, August 27, 2016 2:01:11 0.990	461.42	50.7
Saturday, August 27, 2016 2:06:12 0.990	466.39	51.0
Saturday, August 27, 2016 2:11:12 0.990	471.34	50.9
Saturday, August 27, 2016 2:16:13 0.990	476.31	50.5
Saturday, August 27, 2016 2:21:13 0.990	481.26	50.6
Saturday, August 27, 2016 2:26:14 0.990	486.23	49.9
Saturday, August 27, 2016 2:31:14 0.990	491.18	51.0
Saturday, August 27, 2016 2:36:15 0.990	496.15	50.3
Saturday, August 27, 2016 2:41:16 0.990	501.11	50.5
Saturday, August 27, 2016 2:46:16 0.990	506.07	50.5
Saturday, August 27, 2016 2:51:17 0.990	511.03	50.6
Saturday, August 27, 2016 2:56:17 0.990	515.98	50.5
Saturday, August 27, 2016 3:01:18 0.990	520.95	50.1
Saturday, August 27, 2016 3:06:18 0.990	525.91	50.6
Saturday, August 27, 2016 3:11:19 0.990	530.87	50.5
Saturday, August 27, 2016 3:16:19 0.990	535.83	50.6
Saturday, August 27, 2016 3:21:20 0.990	540.79	50.6
Saturday, August 27, 2016 3:26:20 0.990	545.75	50.8
Saturday, August 27, 2016 3:31:21 0.990	550.71	50.8
Saturday, August 27, 2016 3:36:21 0.990	555.67	51.0
Saturday, August 27, 2016 3:41:22 0.990	560.63	50.9
Saturday, August 27, 2016 3:46:22 0.990	565.59	50.7
Saturday, August 27, 2016 3:51:23 0.990	570.55	51.0
Saturday, August 27, 2016 3:56:23 0.990	575.51	50.7
Saturday, August 27, 2016 4:01:24 0.990	580.48	50.7
Saturday, August 27, 2016 4:06:24 0.990	585.43	50.5
Saturday, August 27, 2016 4:11:25 0.990	590.40	50.1
Saturday, August 27, 2016 4:16:25 0.990	595.35	50.5
Saturday, August 27, 2016 4:21:26 0.990	600.32	50.5
Saturday, August 27, 2016 4:26:26 0.990	605.27	50.7
Saturday, August 27, 2016 4:31:27 0.990	610.24	50.5
Saturday, August 27, 2016 4:36:28 0.990	615.20	50.1
Saturday, August 27, 2016 4:41:28 0.990	620.16	50.2
Saturday, August 27, 2016 4:46:29 0.990	625.12	50.9
Saturday, August 27, 2016 4:51:29 0.990	630.08	50.8
Saturday, August 27, 2016 4:56:30 0.990	635.04	51.1
Saturday, August 27, 2016 5:01:30 0.990	640.00	50.9
Saturday, August 27, 2016 5:06:31 0.990	644.96	51.0
Saturday, August 27, 2016 5:11:31 0.990	649.92	50.5
Saturday, August 27, 2016 5:16:32 0.990	654.88	50.5
Saturday, August 27, 2016 5:21:32 0.990	659.84	50.9
Saturday, August 27, 2016 5:26:33 0.990	664.81	50.9
Saturday, August 27, 2016 5:31:33 0.990	669.76	50.8
Saturday, August 27, 2016 5:36:34 0.990	674.73	50.6
Saturday, August 27, 2016 5:41:34 0.990	679.68	50.5
Saturday, August 27, 2016 5:46:35 0.990	684.65	50.1
Saturday, August 27, 2016 5:51:35 0.990	689.60	50.4
Saturday, August 27, 2016 5:56:36 0.990	694.57	50.2

Saturday, August 27, 2016 6:01:36	0.990	699.52	50.8
Saturday, August 27, 2016 6:06:37	0.990	704.49	50.2
Saturday, August 27, 2016 6:11:37	0.990	709.44	50.2
Saturday, August 27, 2016 6:15:01	0.990	712.81	50.4

aqms5

formaldehyde001

Ch. 1 Cartridge Started Thursday, September 01, 2016 6:00:00

Flow Rate Set Point 1.00 l/min

Stopped Thursday, September 01, 2016 18:00:22

Total Volume 713.05 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.002 l/min

Ending Leak Rate -0.005 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Thursday, September 01, 2016 6:00:27	0.078	0.23	49.6
Thursday, September 01, 2016 6:05:27	0.991	5.18	50.5
Thursday, September 01, 2016 6:10:28	0.990	10.15	50.2
Thursday, September 01, 2016 6:15:28	0.990	15.10	50.1
Thursday, September 01, 2016 6:20:29	0.990	20.07	50.7
Thursday, September 01, 2016 6:25:29	0.990	25.02	50.2
Thursday, September 01, 2016 6:30:30	0.991	29.99	50.4
Thursday, September 01, 2016 6:35:30	0.991	34.94	50.5
Thursday, September 01, 2016 6:40:31	0.991	39.91	50.4
Thursday, September 01, 2016 6:45:31	0.991	44.87	50.4
Thursday, September 01, 2016 6:50:32	0.991	49.84	50.6
Thursday, September 01, 2016 6:55:33	0.991	54.81	50.1
Thursday, September 01, 2016 7:00:33	0.991	59.76	50.5
Thursday, September 01, 2016 7:05:34	0.991	64.73	51.0
Thursday, September 01, 2016 7:10:34	0.991	69.68	50.2
Thursday, September 01, 2016 7:15:35	0.991	74.65	50.8
Thursday, September 01, 2016 7:20:35	0.991	79.60	50.7
Thursday, September 01, 2016 7:25:36	0.991	84.57	50.7
Thursday, September 01, 2016 7:30:37	0.991	89.54	50.1
Thursday, September 01, 2016 7:35:37	0.991	94.50	50.9
Thursday, September 01, 2016 7:40:38	0.991	99.47	50.4
Thursday, September 01, 2016 7:45:38	0.991	104.42	50.1
Thursday, September 01, 2016 7:50:39	0.991	109.39	50.8
Thursday, September 01, 2016 7:55:39	0.991	114.34	51.0
Thursday, September 01, 2016 8:00:40	0.991	119.31	50.7
Thursday, September 01, 2016 8:05:40	0.991	124.27	50.6
Thursday, September 01, 2016 8:10:41	0.991	129.24	50.6
Thursday, September 01, 2016 8:15:41	0.991	134.19	50.3
Thursday, September 01, 2016 8:20:42	0.991	139.16	50.0
Thursday, September 01, 2016 8:25:43	0.991	144.13	50.5
Thursday, September 01, 2016 8:30:43	0.991	149.08	50.1
Thursday, September 01, 2016 8:35:44	0.991	154.05	50.9
Thursday, September 01, 2016 8:40:44	0.991	159.01	50.6

Thursday, September 01, 2016 8:45:45 0.991	163.97	50.6
Thursday, September 01, 2016 8:50:46 0.991	168.94	50.4
Thursday, September 01, 2016 8:55:46 0.991	173.90	50.5
Thursday, September 01, 2016 9:00:47 0.991	178.87	49.7
Thursday, September 01, 2016 9:05:47 0.991	183.82	50.2
Thursday, September 01, 2016 9:10:48 0.991	188.79	50.4
Thursday, September 01, 2016 9:15:48 0.991	193.74	50.8
Thursday, September 01, 2016 9:20:49 0.991	198.71	51.0
Thursday, September 01, 2016 9:25:50 0.991	203.68	50.5
Thursday, September 01, 2016 9:30:50 0.991	208.64	50.6
Thursday, September 01, 2016 9:35:51 0.991	213.61	50.1
Thursday, September 01, 2016 9:40:51 0.991	218.56	50.4
Thursday, September 01, 2016 9:45:52 0.991	223.53	49.7
Thursday, September 01, 2016 9:50:52 0.991	228.48	50.8
Thursday, September 01, 2016 9:55:53 0.991	233.45	50.5
Thursday, September 01, 2016 10:00:54 0.991	238.42	49.8
Thursday, September 01, 2016 10:05:54 0.991	243.38	50.5
Thursday, September 01, 2016 10:10:55 0.991	248.35	50.4
Thursday, September 01, 2016 10:15:55 0.991	253.30	50.1
Thursday, September 01, 2016 10:20:56 0.991	258.27	49.7
Thursday, September 01, 2016 10:25:57 0.991	263.24	50.5
Thursday, September 01, 2016 10:30:57 0.991	268.19	50.5
Thursday, September 01, 2016 10:35:58 0.991	273.16	50.8
Thursday, September 01, 2016 10:40:58 0.991	278.12	51.0
Thursday, September 01, 2016 10:45:59 0.991	283.09	51.0
Thursday, September 01, 2016 10:50:59 0.991	288.04	50.5
Thursday, September 01, 2016 10:56:00 0.991	293.01	50.1
Thursday, September 01, 2016 11:01:01 0.991	297.98	50.1
Thursday, September 01, 2016 11:06:01 0.991	302.93	49.7
Thursday, September 01, 2016 11:11:02 0.991	307.90	50.1
Thursday, September 01, 2016 11:16:02 0.991	312.85	50.6
Thursday, September 01, 2016 11:21:03 0.991	317.82	50.3
Thursday, September 01, 2016 11:26:03 0.991	322.78	49.8
Thursday, September 01, 2016 11:31:04 0.991	327.75	50.4
Thursday, September 01, 2016 11:36:04 0.991	332.70	50.5
Thursday, September 01, 2016 11:41:05 0.991	337.67	49.7
Thursday, September 01, 2016 11:46:06 0.991	342.64	50.3
Thursday, September 01, 2016 11:51:06 0.991	347.59	50.5
Thursday, September 01, 2016 11:56:07 0.991	352.56	50.2
Thursday, September 01, 2016 12:01:07 0.991	357.52	50.0
Thursday, September 01, 2016 12:06:08 0.991	362.49	51.0
Thursday, September 01, 2016 12:11:08 0.991	367.44	50.8
Thursday, September 01, 2016 12:16:09 0.991	372.41	51.0
Thursday, September 01, 2016 12:21:09 0.991	377.36	50.5
Thursday, September 01, 2016 12:26:10 0.991	382.33	50.1
Thursday, September 01, 2016 12:31:11 0.991	387.30	50.1
Thursday, September 01, 2016 12:36:11 0.991	392.26	50.3
Thursday, September 01, 2016 12:41:12 0.991	397.23	50.8
Thursday, September 01, 2016 12:46:12 0.991	402.18	50.9
Thursday, September 01, 2016 12:51:13 0.991	407.15	50.2
Thursday, September 01, 2016 12:56:13 0.991	412.10	49.9
Thursday, September 01, 2016 13:01:14 0.991	417.07	50.5
Thursday, September 01, 2016 13:06:14 0.991	422.03	50.5
Thursday, September 01, 2016 13:11:15 0.991	427.00	50.5

Thursday, September 01, 2016 13:16:15 0.991	431.95	50.6
Thursday, September 01, 2016 13:21:16 0.991	436.92	50.6
Thursday, September 01, 2016 13:26:16 0.991	441.87	50.9
Thursday, September 01, 2016 13:31:17 0.991	446.84	50.2
Thursday, September 01, 2016 13:36:17 0.991	451.80	50.2
Thursday, September 01, 2016 13:41:18 0.991	456.77	50.9
Thursday, September 01, 2016 13:46:19 0.991	461.74	50.3
Thursday, September 01, 2016 13:51:19 0.991	466.69	50.9
Thursday, September 01, 2016 13:56:20 0.991	471.66	50.8
Thursday, September 01, 2016 14:01:20 0.991	476.61	50.3
Thursday, September 01, 2016 14:06:21 0.991	481.58	50.8
Thursday, September 01, 2016 14:11:21 0.991	486.54	50.2
Thursday, September 01, 2016 14:16:22 0.991	491.51	50.1
Thursday, September 01, 2016 14:21:23 0.991	496.48	50.6
Thursday, September 01, 2016 14:26:23 0.991	501.43	50.1
Thursday, September 01, 2016 14:31:24 0.991	506.40	50.2
Thursday, September 01, 2016 14:36:24 0.991	511.35	50.1
Thursday, September 01, 2016 14:41:25 0.991	516.32	50.6
Thursday, September 01, 2016 14:46:25 0.991	521.28	50.5
Thursday, September 01, 2016 14:51:26 0.991	526.25	50.5
Thursday, September 01, 2016 14:56:26 0.991	531.20	50.1
Thursday, September 01, 2016 15:01:27 0.991	536.17	50.8
Thursday, September 01, 2016 15:06:27 0.991	541.12	50.4
Thursday, September 01, 2016 15:11:28 0.991	546.09	50.5
Thursday, September 01, 2016 15:16:29 0.991	551.06	50.9
Thursday, September 01, 2016 15:21:29 0.991	556.02	50.2
Thursday, September 01, 2016 15:26:30 0.991	560.98	49.8
Thursday, September 01, 2016 15:31:30 0.991	565.94	50.5
Thursday, September 01, 2016 15:36:31 0.991	570.91	50.9
Thursday, September 01, 2016 15:41:32 0.991	575.88	50.5
Thursday, September 01, 2016 15:46:32 0.991	580.83	50.9
Thursday, September 01, 2016 15:51:33 0.991	585.80	50.9
Thursday, September 01, 2016 15:56:33 0.991	590.75	51.1
Thursday, September 01, 2016 16:01:34 0.991	595.72	49.8
Thursday, September 01, 2016 16:06:34 0.991	600.68	50.1
Thursday, September 01, 2016 16:11:35 0.991	605.65	50.5
Thursday, September 01, 2016 16:16:36 0.991	610.61	50.9
Thursday, September 01, 2016 16:21:36 0.991	615.57	50.6
Thursday, September 01, 2016 16:26:37 0.991	620.54	50.2
Thursday, September 01, 2016 16:31:37 0.991	625.49	50.1
Thursday, September 01, 2016 16:36:38 0.991	630.46	50.1
Thursday, September 01, 2016 16:41:38 0.991	635.41	49.9
Thursday, September 01, 2016 16:46:39 0.991	640.38	50.1
Thursday, September 01, 2016 16:51:40 0.991	645.35	50.4
Thursday, September 01, 2016 16:56:40 0.991	650.31	51.0
Thursday, September 01, 2016 17:01:41 0.991	655.28	50.6
Thursday, September 01, 2016 17:06:41 0.991	660.23	50.5
Thursday, September 01, 2016 17:11:42 0.991	665.20	50.6
Thursday, September 01, 2016 17:16:43 0.991	670.17	50.5
Thursday, September 01, 2016 17:21:43 0.991	675.12	51.0
Thursday, September 01, 2016 17:26:44 0.991	680.09	49.7
Thursday, September 01, 2016 17:31:44 0.991	685.04	50.6
Thursday, September 01, 2016 17:36:45 0.991	690.01	50.1
Thursday, September 01, 2016 17:41:45 0.991	694.97	50.6

Thursday, September 01, 2016 17:46:46 0.991	699.94	50.5
Thursday, September 01, 2016 17:51:47 0.991	704.91	50.9
Thursday, September 01, 2016 17:56:47 0.991	709.86	50.1
Thursday, September 01, 2016 18:00:00 0.991	713.05	50.1

aqms5

formaldehyde002

Ch. 2 Cartridge Started Thursday, September 01, 2016 18:15:03

Flow Rate Set Point 1.00 l/min

Stopped Friday, September 02, 2016 6:15:25

Total Volume 712.80 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Thursday, September 01, 2016 18:15:30	0.080	0.22	50.1
Thursday, September 01, 2016 18:20:31	0.990	5.19	50.1
Thursday, September 01, 2016 18:25:31	0.990	10.14	50.0
Thursday, September 01, 2016 18:30:32	0.990	15.11	50.8
Thursday, September 01, 2016 18:35:32	0.990	20.06	50.5
Thursday, September 01, 2016 18:40:33	0.990	25.03	50.1
Thursday, September 01, 2016 18:45:33	0.990	29.98	50.4
Thursday, September 01, 2016 18:50:34	0.990	34.95	50.9
Thursday, September 01, 2016 18:55:34	0.990	39.90	50.1
Thursday, September 01, 2016 19:00:35	0.990	44.87	50.1
Thursday, September 01, 2016 19:05:35	0.990	49.82	50.9
Thursday, September 01, 2016 19:10:36	0.990	54.79	50.4
Thursday, September 01, 2016 19:15:36	0.990	59.74	50.5
Thursday, September 01, 2016 19:20:37	0.990	64.71	50.2
Thursday, September 01, 2016 19:25:37	0.990	69.66	50.8
Thursday, September 01, 2016 19:30:38	0.990	74.63	49.1
Thursday, September 01, 2016 19:35:38	0.990	79.58	49.7
Thursday, September 01, 2016 19:40:39	0.990	84.54	50.2
Thursday, September 01, 2016 19:45:39	0.990	89.50	50.5
Thursday, September 01, 2016 19:50:40	0.990	94.46	50.5
Thursday, September 01, 2016 19:55:40	0.990	99.41	50.2
Thursday, September 01, 2016 20:00:41	0.990	104.38	50.0
Thursday, September 01, 2016 20:05:42	0.990	109.35	49.7
Thursday, September 01, 2016 20:10:42	0.990	114.30	49.7
Thursday, September 01, 2016 20:15:43	0.990	119.27	50.8
Thursday, September 01, 2016 20:20:43	0.990	124.22	50.8
Thursday, September 01, 2016 20:25:44	0.990	129.19	50.8
Thursday, September 01, 2016 20:30:44	0.990	134.14	50.5
Thursday, September 01, 2016 20:35:45	0.990	139.11	51.1
Thursday, September 01, 2016 20:40:45	0.990	144.06	50.2
Thursday, September 01, 2016 20:45:46	0.990	149.03	49.8
Thursday, September 01, 2016 20:50:46	0.990	153.98	49.7
Thursday, September 01, 2016 20:55:47	0.990	158.95	51.0

Thursday, September 01, 2016 21:00:47 0.990	163.90	50.8
Thursday, September 01, 2016 21:05:48 0.990	168.87	50.4
Thursday, September 01, 2016 21:10:48 0.990	173.82	50.5
Thursday, September 01, 2016 21:15:49 0.990	178.79	50.7
Thursday, September 01, 2016 21:20:49 0.990	183.74	51.0
Thursday, September 01, 2016 21:25:50 0.990	188.70	50.4
Thursday, September 01, 2016 21:30:50 0.990	193.66	50.7
Thursday, September 01, 2016 21:35:51 0.990	198.62	50.3
Thursday, September 01, 2016 21:40:51 0.990	203.58	50.2
Thursday, September 01, 2016 21:45:52 0.990	208.54	50.7
Thursday, September 01, 2016 21:50:52 0.990	213.49	50.5
Thursday, September 01, 2016 21:55:53 0.990	218.46	50.8
Thursday, September 01, 2016 22:00:53 0.990	223.41	50.1
Thursday, September 01, 2016 22:05:54 0.990	228.38	50.7
Thursday, September 01, 2016 22:10:54 0.990	233.33	50.8
Thursday, September 01, 2016 22:15:55 0.990	238.30	50.3
Thursday, September 01, 2016 22:20:55 0.990	243.25	50.5
Thursday, September 01, 2016 22:25:56 0.990	248.22	50.8
Thursday, September 01, 2016 22:30:56 0.990	253.17	50.4
Thursday, September 01, 2016 22:35:57 0.990	258.14	49.9
Thursday, September 01, 2016 22:40:57 0.990	263.09	50.6
Thursday, September 01, 2016 22:45:58 0.990	268.06	50.3
Thursday, September 01, 2016 22:50:59 0.990	273.03	50.1
Thursday, September 01, 2016 22:55:59 0.990	277.98	50.5
Thursday, September 01, 2016 23:01:00 0.990	282.95	50.1
Thursday, September 01, 2016 23:06:00 0.990	287.90	50.3
Thursday, September 01, 2016 23:11:01 0.990	292.87	50.5
Thursday, September 01, 2016 23:16:01 0.990	297.82	49.8
Thursday, September 01, 2016 23:21:02 0.990	302.78	50.5
Thursday, September 01, 2016 23:26:02 0.990	307.74	50.1
Thursday, September 01, 2016 23:31:03 0.990	312.70	50.4
Thursday, September 01, 2016 23:36:03 0.990	317.66	50.7
Thursday, September 01, 2016 23:41:04 0.990	322.62	50.2
Thursday, September 01, 2016 23:46:04 0.990	327.58	50.8
Thursday, September 01, 2016 23:51:05 0.990	332.54	50.4
Thursday, September 01, 2016 23:56:05 0.990	337.49	50.2
Friday, September 02, 2016 0:01:06 0.990	342.46	51.1
Friday, September 02, 2016 0:06:06 0.990	347.41	50.3
Friday, September 02, 2016 0:11:07 0.990	352.38	50.0
Friday, September 02, 2016 0:16:08 0.990	357.35	50.1
Friday, September 02, 2016 0:21:08 0.990	362.30	50.3
Friday, September 02, 2016 0:26:08 0.990	367.25	49.8
Friday, September 02, 2016 0:31:09 0.990	372.22	50.5
Friday, September 02, 2016 0:36:10 0.990	377.19	50.5
Friday, September 02, 2016 0:41:10 0.990	382.14	50.9
Friday, September 02, 2016 0:46:11 0.990	387.11	50.1
Friday, September 02, 2016 0:51:11 0.990	392.06	50.6
Friday, September 02, 2016 0:56:12 0.990	397.03	50.5
Friday, September 02, 2016 1:01:12 0.990	401.98	50.1
Friday, September 02, 2016 1:06:13 0.990	406.95	50.5
Friday, September 02, 2016 1:11:13 0.990	411.90	50.6
Friday, September 02, 2016 1:16:14 0.990	416.86	50.3
Friday, September 02, 2016 1:21:14 0.990	421.82	50.8
Friday, September 02, 2016 1:26:15 0.990	426.78	50.5

Friday, September 02, 2016 1:31:15 0.990	431.74	50.5
Friday, September 02, 2016 1:36:16 0.990	436.70	50.1
Friday, September 02, 2016 1:41:16 0.990	441.65	51.0
Friday, September 02, 2016 1:46:17 0.990	446.62	50.6
Friday, September 02, 2016 1:51:17 0.990	451.57	50.0
Friday, September 02, 2016 1:56:18 0.990	456.54	50.4
Friday, September 02, 2016 2:01:18 0.990	461.49	50.6
Friday, September 02, 2016 2:06:19 0.990	466.46	50.2
Friday, September 02, 2016 2:11:19 0.990	471.41	50.1
Friday, September 02, 2016 2:16:20 0.990	476.38	50.9
Friday, September 02, 2016 2:21:20 0.990	481.33	50.3
Friday, September 02, 2016 2:26:21 0.990	486.30	50.1
Friday, September 02, 2016 2:31:22 0.990	491.27	50.6
Friday, September 02, 2016 2:36:22 0.990	496.22	50.2
Friday, September 02, 2016 2:41:23 0.990	501.19	50.4
Friday, September 02, 2016 2:46:23 0.990	506.14	50.9
Friday, September 02, 2016 2:51:24 0.990	511.11	50.7
Friday, September 02, 2016 2:56:24 0.990	516.06	50.5
Friday, September 02, 2016 3:01:25 0.990	521.03	50.6
Friday, September 02, 2016 3:06:25 0.990	525.98	50.1
Friday, September 02, 2016 3:11:26 0.990	530.95	51.0
Friday, September 02, 2016 3:16:26 0.990	535.90	50.9
Friday, September 02, 2016 3:21:27 0.990	540.87	50.5
Friday, September 02, 2016 3:26:27 0.990	545.82	50.1
Friday, September 02, 2016 3:31:28 0.990	550.79	50.1
Friday, September 02, 2016 3:36:28 0.990	555.74	50.1
Friday, September 02, 2016 3:41:29 0.990	560.71	49.8
Friday, September 02, 2016 3:46:29 0.990	565.66	49.9
Friday, September 02, 2016 3:51:30 0.990	570.63	50.1
Friday, September 02, 2016 3:56:30 0.990	575.58	50.6
Friday, September 02, 2016 4:01:31 0.990	580.55	50.6
Friday, September 02, 2016 4:06:31 0.990	585.50	50.1
Friday, September 02, 2016 4:11:32 0.990	590.47	49.4
Friday, September 02, 2016 4:16:32 0.990	595.42	49.7
Friday, September 02, 2016 4:21:33 0.990	600.39	50.7
Friday, September 02, 2016 4:26:33 0.990	605.34	50.1
Friday, September 02, 2016 4:31:34 0.990	610.31	50.8
Friday, September 02, 2016 4:36:34 0.990	615.26	50.6
Friday, September 02, 2016 4:41:35 0.990	620.23	50.7
Friday, September 02, 2016 4:46:36 0.990	625.20	51.0
Friday, September 02, 2016 4:51:36 0.990	630.15	50.1
Friday, September 02, 2016 4:56:37 0.990	635.12	50.4
Friday, September 02, 2016 5:01:37 0.990	640.07	50.2
Friday, September 02, 2016 5:06:38 0.990	645.04	50.9
Friday, September 02, 2016 5:11:38 0.990	649.99	50.8
Friday, September 02, 2016 5:16:39 0.990	654.96	50.5
Friday, September 02, 2016 5:21:39 0.990	659.91	50.2
Friday, September 02, 2016 5:26:40 0.990	664.88	51.1
Friday, September 02, 2016 5:31:40 0.990	669.83	50.5
Friday, September 02, 2016 5:36:41 0.990	674.80	50.2
Friday, September 02, 2016 5:41:41 0.990	679.75	50.2
Friday, September 02, 2016 5:46:42 0.990	684.72	50.2
Friday, September 02, 2016 5:51:43 0.990	689.69	51.0
Friday, September 02, 2016 5:56:43 0.990	694.64	50.1

Friday, September 02, 2016 6:01:44	0.990	699.61	50.1
Friday, September 02, 2016 6:06:44	0.990	704.56	50.4
Friday, September 02, 2016 6:11:45	0.990	709.53	50.2
Friday, September 02, 2016 6:15:03	0.990	712.79	50.1

aqms5

formaldehyde001

Ch. 1 Cartridge Started Wednesday, September 07, 2016 6:00:04

Flow Rate Set Point 1.00 l/min

Stopped Wednesday, September 07, 2016 18:00:22

Total Volume 713.02 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.002 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Wednesday, September 07, 2016 6:00:31	0.079	0.23	50.0
Wednesday, September 07, 2016 6:05:32	0.991	5.20	49.4
Wednesday, September 07, 2016 6:10:32	0.990	10.15	49.9
Wednesday, September 07, 2016 6:15:33	0.990	15.12	50.1
Wednesday, September 07, 2016 6:20:33	0.990	20.07	49.8
Wednesday, September 07, 2016 6:25:34	0.991	25.04	50.3
Wednesday, September 07, 2016 6:30:35	0.990	30.01	50.6
Wednesday, September 07, 2016 6:35:35	0.991	34.96	50.8
Wednesday, September 07, 2016 6:40:36	0.991	39.93	50.8
Wednesday, September 07, 2016 6:45:36	0.991	44.88	51.0
Wednesday, September 07, 2016 6:50:37	0.991	49.85	50.0
Wednesday, September 07, 2016 6:55:37	0.991	54.80	49.9
Wednesday, September 07, 2016 7:00:38	0.991	59.77	50.8
Wednesday, September 07, 2016 7:05:38	0.991	64.73	50.3
Wednesday, September 07, 2016 7:10:39	0.991	69.70	50.5
Wednesday, September 07, 2016 7:15:39	0.991	74.65	50.2
Wednesday, September 07, 2016 7:20:40	0.991	79.62	50.1
Wednesday, September 07, 2016 7:25:41	0.991	84.59	50.0
Wednesday, September 07, 2016 7:30:41	0.991	89.54	50.1
Wednesday, September 07, 2016 7:35:42	0.991	94.51	49.9
Wednesday, September 07, 2016 7:40:42	0.991	99.46	51.0
Wednesday, September 07, 2016 7:45:43	0.991	104.43	50.8
Wednesday, September 07, 2016 7:50:43	0.991	109.39	50.5
Wednesday, September 07, 2016 7:55:44	0.991	114.36	50.2
Wednesday, September 07, 2016 8:00:44	0.991	119.31	50.6
Wednesday, September 07, 2016 8:05:45	0.991	124.28	50.5
Wednesday, September 07, 2016 8:10:45	0.991	129.23	49.7
Wednesday, September 07, 2016 8:15:46	0.991	134.20	49.9
Wednesday, September 07, 2016 8:20:47	0.991	139.17	49.8
Wednesday, September 07, 2016 8:25:47	0.991	144.13	50.1
Wednesday, September 07, 2016 8:30:48	0.991	149.10	50.5
Wednesday, September 07, 2016 8:35:48	0.991	154.05	50.4
Wednesday, September 07, 2016 8:40:49	0.991	159.02	50.2

Wednesday, September 07, 2016 8:45:49 0.991	163.97	50.5
Wednesday, September 07, 2016 8:50:50 0.991	168.94	50.1
Wednesday, September 07, 2016 8:55:50 0.991	173.89	50.7
Wednesday, September 07, 2016 9:00:51 0.991	178.86	50.8
Wednesday, September 07, 2016 9:05:52 0.991	183.83	50.9
Wednesday, September 07, 2016 9:10:52 0.991	188.79	50.5
Wednesday, September 07, 2016 9:15:53 0.991	193.76	50.3
Wednesday, September 07, 2016 9:20:53 0.991	198.71	50.6
Wednesday, September 07, 2016 9:25:54 0.991	203.68	50.8
Wednesday, September 07, 2016 9:30:54 0.991	208.63	50.4
Wednesday, September 07, 2016 9:35:55 0.991	213.60	50.5
Wednesday, September 07, 2016 9:40:55 0.991	218.56	50.9
Wednesday, September 07, 2016 9:45:56 0.991	223.53	51.0
Wednesday, September 07, 2016 9:50:57 0.991	228.50	50.5
Wednesday, September 07, 2016 9:55:57 0.991	233.45	49.3
Wednesday, September 07, 2016 10:00:58 0.991	238.42	50.1
Wednesday, September 07, 2016 10:05:58 0.991	243.37	50.5
Wednesday, September 07, 2016 10:10:59 0.991	248.34	49.9
Wednesday, September 07, 2016 10:15:59 0.991	253.30	50.1
Wednesday, September 07, 2016 10:21:00 0.991	258.27	49.9
Wednesday, September 07, 2016 10:26:00 0.991	263.22	50.2
Wednesday, September 07, 2016 10:31:01 0.991	268.19	50.5
Wednesday, September 07, 2016 10:36:01 0.991	273.15	50.2
Wednesday, September 07, 2016 10:41:02 0.991	278.12	50.4
Wednesday, September 07, 2016 10:46:03 0.991	283.09	50.4
Wednesday, September 07, 2016 10:51:03 0.991	288.04	50.1
Wednesday, September 07, 2016 10:56:04 0.991	293.01	50.5
Wednesday, September 07, 2016 11:01:04 0.991	297.96	50.9
Wednesday, September 07, 2016 11:06:05 0.991	302.93	50.5
Wednesday, September 07, 2016 11:11:05 0.991	307.89	50.4
Wednesday, September 07, 2016 11:16:06 0.991	312.86	50.4
Wednesday, September 07, 2016 11:21:06 0.991	317.81	49.9
Wednesday, September 07, 2016 11:26:07 0.991	322.78	50.7
Wednesday, September 07, 2016 11:31:07 0.991	327.73	50.4
Wednesday, September 07, 2016 11:36:08 0.991	332.70	50.6
Wednesday, September 07, 2016 11:41:08 0.991	337.66	50.9
Wednesday, September 07, 2016 11:46:09 0.991	342.63	50.6
Wednesday, September 07, 2016 11:51:10 0.991	347.60	49.8
Wednesday, September 07, 2016 11:56:10 0.991	352.55	50.6
Wednesday, September 07, 2016 12:01:11 0.991	357.52	50.1
Wednesday, September 07, 2016 12:06:11 0.991	362.48	50.9
Wednesday, September 07, 2016 12:11:12 0.991	367.45	50.1
Wednesday, September 07, 2016 12:16:12 0.991	372.40	50.6
Wednesday, September 07, 2016 12:21:13 0.991	377.37	50.6
Wednesday, September 07, 2016 12:26:13 0.991	382.32	50.7
Wednesday, September 07, 2016 12:31:14 0.991	387.29	50.2
Wednesday, September 07, 2016 12:36:15 0.991	392.26	50.8
Wednesday, September 07, 2016 12:41:15 0.991	397.22	50.8
Wednesday, September 07, 2016 12:46:16 0.991	402.19	50.8
Wednesday, September 07, 2016 12:51:16 0.991	407.14	50.1
Wednesday, September 07, 2016 12:56:17 0.991	412.11	50.8
Wednesday, September 07, 2016 13:01:17 0.991	417.06	50.4
Wednesday, September 07, 2016 13:06:18 0.991	422.04	50.4
Wednesday, September 07, 2016 13:11:18 0.991	426.99	50.2

Wednesday, September 07, 2016 13:16:18 0.991	431.94	50.2
Wednesday, September 07, 2016 13:21:19 0.991	436.91	50.2
Wednesday, September 07, 2016 13:26:19 0.991	441.87	50.2
Wednesday, September 07, 2016 13:31:19 0.991	446.82	50.1
Wednesday, September 07, 2016 13:36:20 0.991	451.79	50.3
Wednesday, September 07, 2016 13:41:20 0.991	456.74	50.2
Wednesday, September 07, 2016 13:46:20 0.991	461.70	50.3
Wednesday, September 07, 2016 13:51:21 0.991	466.67	50.5
Wednesday, September 07, 2016 13:56:21 0.991	471.62	50.6
Wednesday, September 07, 2016 14:01:22 0.991	476.59	50.2
Wednesday, September 07, 2016 14:06:22 0.991	481.55	50.5
Wednesday, September 07, 2016 14:11:22 0.991	486.50	50.1
Wednesday, September 07, 2016 14:16:23 0.991	491.47	50.4
Wednesday, September 07, 2016 14:21:23 0.991	496.42	50.6
Wednesday, September 07, 2016 14:26:24 0.991	501.40	50.2
Wednesday, September 07, 2016 14:31:24 0.991	506.35	50.4
Wednesday, September 07, 2016 14:36:25 0.991	511.32	50.4
Wednesday, September 07, 2016 14:41:25 0.991	516.27	50.5
Wednesday, September 07, 2016 14:46:25 0.991	521.23	50.1
Wednesday, September 07, 2016 14:51:26 0.991	526.20	50.5
Wednesday, September 07, 2016 14:56:26 0.991	531.15	50.2
Wednesday, September 07, 2016 15:01:26 0.991	536.10	50.2
Wednesday, September 07, 2016 15:06:27 0.991	541.07	50.2
Wednesday, September 07, 2016 15:11:27 0.991	546.02	50.2
Wednesday, September 07, 2016 15:16:27 0.991	550.98	50.2
Wednesday, September 07, 2016 15:21:28 0.991	555.95	50.2
Wednesday, September 07, 2016 15:26:28 0.991	560.90	50.2
Wednesday, September 07, 2016 15:31:28 0.991	565.86	50.2
Wednesday, September 07, 2016 15:36:29 0.991	570.83	50.2
Wednesday, September 07, 2016 15:41:29 0.991	575.78	50.2
Wednesday, September 07, 2016 15:46:29 0.991	580.73	50.2
Wednesday, September 07, 2016 15:51:30 0.991	585.70	50.1
Wednesday, September 07, 2016 15:56:30 0.991	590.66	50.2
Wednesday, September 07, 2016 16:01:30 0.991	595.61	50.2
Wednesday, September 07, 2016 16:06:31 0.991	600.58	50.0
Wednesday, September 07, 2016 16:11:31 0.991	605.53	50.0
Wednesday, September 07, 2016 16:16:32 0.991	610.50	50.5
Wednesday, September 07, 2016 16:21:32 0.991	615.46	50.7
Wednesday, September 07, 2016 16:26:33 0.991	620.43	50.6
Wednesday, September 07, 2016 16:31:33 0.991	625.38	50.1
Wednesday, September 07, 2016 16:36:34 0.991	630.35	50.6
Wednesday, September 07, 2016 16:41:34 0.991	635.30	50.5
Wednesday, September 07, 2016 16:46:35 0.991	640.27	50.5
Wednesday, September 07, 2016 16:51:35 0.991	645.22	50.8
Wednesday, September 07, 2016 16:56:36 0.991	650.19	50.1
Wednesday, September 07, 2016 17:01:36 0.991	655.15	50.6
Wednesday, September 07, 2016 17:06:37 0.991	660.12	50.4
Wednesday, September 07, 2016 17:11:37 0.991	665.07	50.8
Wednesday, September 07, 2016 17:16:38 0.991	670.04	50.8
Wednesday, September 07, 2016 17:21:38 0.991	674.99	50.3
Wednesday, September 07, 2016 17:26:39 0.991	679.96	49.9
Wednesday, September 07, 2016 17:31:39 0.991	684.92	50.4
Wednesday, September 07, 2016 17:36:40 0.991	689.89	50.7
Wednesday, September 07, 2016 17:41:40 0.991	694.84	50.6

Wednesday, September 07, 2016 17:46:41 0.991	699.81	50.7
Wednesday, September 07, 2016 17:51:41 0.991	704.76	50.5
Wednesday, September 07, 2016 17:56:42 0.991	709.73	50.4
Wednesday, September 07, 2016 18:00:01 0.991	713.02	50.2

aqms5

formaldehyde002

Ch. 2 Cartridge Started Wednesday, September 07, 2016 18:15:03

Flow Rate Set Point 1.00 l/min

Stopped Thursday, September 08, 2016 6:15:25

Total Volume 712.81 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.004 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Wednesday, September 07, 2016 18:15:30	0.080	0.22	49.5
Wednesday, September 07, 2016 18:20:31	0.990	5.19	49.9
Wednesday, September 07, 2016 18:25:31	0.990	10.14	50.7
Wednesday, September 07, 2016 18:30:32	0.990	15.11	50.4
Wednesday, September 07, 2016 18:35:32	0.990	20.06	50.8
Wednesday, September 07, 2016 18:40:33	0.990	25.03	50.6
Wednesday, September 07, 2016 18:45:33	0.990	29.98	50.3
Wednesday, September 07, 2016 18:50:34	0.990	34.95	50.5
Wednesday, September 07, 2016 18:55:34	0.990	39.90	50.2
Wednesday, September 07, 2016 19:00:35	0.990	44.87	50.5
Wednesday, September 07, 2016 19:05:35	0.990	49.82	50.5
Wednesday, September 07, 2016 19:10:36	0.990	54.79	50.1
Wednesday, September 07, 2016 19:15:36	0.990	59.74	50.7
Wednesday, September 07, 2016 19:20:37	0.990	64.71	51.0
Wednesday, September 07, 2016 19:25:37	0.990	69.66	50.2
Wednesday, September 07, 2016 19:30:38	0.990	74.63	50.5
Wednesday, September 07, 2016 19:35:38	0.990	79.58	49.7
Wednesday, September 07, 2016 19:40:39	0.990	84.55	50.5
Wednesday, September 07, 2016 19:45:40	0.990	89.51	50.5
Wednesday, September 07, 2016 19:50:40	0.990	94.46	49.8
Wednesday, September 07, 2016 19:55:41	0.990	99.43	50.6
Wednesday, September 07, 2016 20:00:41	0.990	104.38	50.4
Wednesday, September 07, 2016 20:05:42	0.990	109.35	50.8
Wednesday, September 07, 2016 20:10:42	0.990	114.30	50.1
Wednesday, September 07, 2016 20:15:43	0.990	119.27	49.6
Wednesday, September 07, 2016 20:20:43	0.990	124.22	50.3
Wednesday, September 07, 2016 20:25:44	0.990	129.19	50.5
Wednesday, September 07, 2016 20:30:44	0.990	134.14	50.6
Wednesday, September 07, 2016 20:35:45	0.990	139.11	50.5
Wednesday, September 07, 2016 20:40:45	0.990	144.06	50.8
Wednesday, September 07, 2016 20:45:46	0.990	149.03	50.5
Wednesday, September 07, 2016 20:50:46	0.990	153.98	50.9
Wednesday, September 07, 2016 20:55:47	0.990	158.95	50.1

Wednesday, September 07, 2016 21:00:47 0.990	163.90	50.3
Wednesday, September 07, 2016 21:05:48 0.990	168.87	51.0
Wednesday, September 07, 2016 21:10:49 0.990	173.84	51.0
Wednesday, September 07, 2016 21:15:49 0.990	178.79	50.7
Wednesday, September 07, 2016 21:20:50 0.990	183.76	50.1
Wednesday, September 07, 2016 21:25:50 0.990	188.71	50.8
Wednesday, September 07, 2016 21:30:51 0.990	193.67	50.1
Wednesday, September 07, 2016 21:35:51 0.990	198.63	50.1
Wednesday, September 07, 2016 21:40:52 0.990	203.59	50.3
Wednesday, September 07, 2016 21:45:52 0.990	208.55	50.7
Wednesday, September 07, 2016 21:50:53 0.990	213.51	49.7
Wednesday, September 07, 2016 21:55:53 0.990	218.46	50.7
Wednesday, September 07, 2016 22:00:54 0.990	223.43	50.7
Wednesday, September 07, 2016 22:05:54 0.990	228.38	50.4
Wednesday, September 07, 2016 22:10:55 0.990	233.35	49.7
Wednesday, September 07, 2016 22:15:55 0.990	238.30	50.1
Wednesday, September 07, 2016 22:20:56 0.990	243.27	50.2
Wednesday, September 07, 2016 22:25:56 0.990	248.22	50.5
Wednesday, September 07, 2016 22:30:57 0.990	253.19	51.0
Wednesday, September 07, 2016 22:35:58 0.990	258.16	50.4
Wednesday, September 07, 2016 22:40:58 0.990	263.11	50.5
Wednesday, September 07, 2016 22:45:59 0.990	268.08	49.4
Wednesday, September 07, 2016 22:50:59 0.990	273.03	50.7
Wednesday, September 07, 2016 22:56:00 0.990	278.00	50.6
Wednesday, September 07, 2016 23:01:00 0.990	282.95	50.6
Wednesday, September 07, 2016 23:06:01 0.990	287.92	50.5
Wednesday, September 07, 2016 23:11:01 0.990	292.87	50.4
Wednesday, September 07, 2016 23:16:02 0.990	297.84	50.6
Wednesday, September 07, 2016 23:21:02 0.990	302.79	50.6
Wednesday, September 07, 2016 23:26:03 0.990	307.75	50.1
Wednesday, September 07, 2016 23:31:03 0.990	312.71	51.0
Wednesday, September 07, 2016 23:36:04 0.990	317.67	50.1
Wednesday, September 07, 2016 23:41:04 0.990	322.63	50.4
Wednesday, September 07, 2016 23:46:05 0.990	327.59	50.6
Wednesday, September 07, 2016 23:51:05 0.990	332.54	50.1
Wednesday, September 07, 2016 23:56:06 0.990	337.51	49.8
Thursday, September 08, 2016 0:01:07 0.990	342.48	50.2
Thursday, September 08, 2016 0:06:07 0.990	347.43	50.2
Thursday, September 08, 2016 0:11:08 0.990	352.40	50.2
Thursday, September 08, 2016 0:16:08 0.990	357.35	49.8
Thursday, September 08, 2016 0:21:09 0.990	362.32	50.3
Thursday, September 08, 2016 0:26:09 0.990	367.27	50.9
Thursday, September 08, 2016 0:31:10 0.990	372.24	50.9
Thursday, September 08, 2016 0:36:10 0.990	377.19	51.0
Thursday, September 08, 2016 0:41:11 0.990	382.16	49.9
Thursday, September 08, 2016 0:46:11 0.990	387.11	50.1
Thursday, September 08, 2016 0:51:12 0.990	392.08	50.7
Thursday, September 08, 2016 0:56:12 0.990	397.03	50.7
Thursday, September 08, 2016 1:01:13 0.990	402.00	50.7
Thursday, September 08, 2016 1:06:13 0.990	406.95	50.7
Thursday, September 08, 2016 1:11:14 0.990	411.92	50.2
Thursday, September 08, 2016 1:16:14 0.990	416.87	49.9
Thursday, September 08, 2016 1:21:15 0.990	421.83	50.8
Thursday, September 08, 2016 1:26:15 0.990	426.79	50.8

Thursday, September 08, 2016 1:31:16 0.990	431.75	51.0
Thursday, September 08, 2016 1:36:16 0.990	436.71	50.3
Thursday, September 08, 2016 1:41:17 0.990	441.67	50.5
Thursday, September 08, 2016 1:46:17 0.990	446.62	50.9
Thursday, September 08, 2016 1:51:18 0.990	451.59	50.1
Thursday, September 08, 2016 1:56:18 0.990	456.54	50.8
Thursday, September 08, 2016 2:01:19 0.990	461.51	51.0
Thursday, September 08, 2016 2:06:19 0.990	466.46	50.5
Thursday, September 08, 2016 2:11:20 0.990	471.43	50.3
Thursday, September 08, 2016 2:16:20 0.990	476.38	50.3
Thursday, September 08, 2016 2:21:21 0.990	481.35	50.6
Thursday, September 08, 2016 2:26:22 0.990	486.32	50.2
Thursday, September 08, 2016 2:31:22 0.990	491.27	50.3
Thursday, September 08, 2016 2:36:22 0.990	496.22	50.5
Thursday, September 08, 2016 2:41:23 0.990	501.19	49.8
Thursday, September 08, 2016 2:46:24 0.990	506.16	50.1
Thursday, September 08, 2016 2:51:24 0.990	511.11	50.5
Thursday, September 08, 2016 2:56:25 0.990	516.08	50.3
Thursday, September 08, 2016 3:01:25 0.990	521.03	50.2
Thursday, September 08, 2016 3:06:26 0.990	526.00	50.2
Thursday, September 08, 2016 3:11:26 0.990	530.95	50.3
Thursday, September 08, 2016 3:16:27 0.990	535.92	50.6
Thursday, September 08, 2016 3:21:27 0.990	540.87	51.0
Thursday, September 08, 2016 3:26:28 0.990	545.84	50.5
Thursday, September 08, 2016 3:31:28 0.990	550.79	50.6
Thursday, September 08, 2016 3:36:29 0.990	555.76	50.4
Thursday, September 08, 2016 3:41:29 0.990	560.71	50.8
Thursday, September 08, 2016 3:46:30 0.990	565.68	50.1
Thursday, September 08, 2016 3:51:30 0.990	570.63	50.6
Thursday, September 08, 2016 3:56:31 0.990	575.60	50.5
Thursday, September 08, 2016 4:01:31 0.990	580.55	50.7
Thursday, September 08, 2016 4:06:32 0.990	585.52	51.0
Thursday, September 08, 2016 4:11:32 0.990	590.47	50.6
Thursday, September 08, 2016 4:16:33 0.990	595.44	50.0
Thursday, September 08, 2016 4:21:33 0.990	600.39	51.1
Thursday, September 08, 2016 4:26:34 0.990	605.36	50.9
Thursday, September 08, 2016 4:31:34 0.990	610.31	50.8
Thursday, September 08, 2016 4:36:35 0.990	615.28	50.1
Thursday, September 08, 2016 4:41:35 0.990	620.23	50.3
Thursday, September 08, 2016 4:46:36 0.990	625.20	51.0
Thursday, September 08, 2016 4:51:36 0.990	630.15	50.2
Thursday, September 08, 2016 4:56:37 0.990	635.12	50.8
Thursday, September 08, 2016 5:01:37 0.990	640.07	49.5
Thursday, September 08, 2016 5:06:38 0.990	645.04	50.3
Thursday, September 08, 2016 5:11:38 0.990	649.99	51.0
Thursday, September 08, 2016 5:16:39 0.990	654.96	49.8
Thursday, September 08, 2016 5:21:40 0.990	659.93	50.3
Thursday, September 08, 2016 5:26:40 0.990	664.88	49.7
Thursday, September 08, 2016 5:31:41 0.990	669.85	51.1
Thursday, September 08, 2016 5:36:41 0.990	674.80	49.7
Thursday, September 08, 2016 5:41:42 0.990	679.77	49.8
Thursday, September 08, 2016 5:46:42 0.990	684.72	50.5
Thursday, September 08, 2016 5:51:43 0.990	689.69	49.8
Thursday, September 08, 2016 5:56:43 0.990	694.64	50.6

Thursday, September 08, 2016 6:01:44 0.990	699.61	50.5
Thursday, September 08, 2016 6:06:44 0.990	704.56	50.5
Thursday, September 08, 2016 6:11:45 0.990	709.53	50.2
Thursday, September 08, 2016 6:15:03 0.990	712.80	50.8

aqms5

formaldehyde001

Ch. 1 Cartridge Started Tuesday, September 13, 2016 6:00:01

Flow Rate Set Point 1.00 l/min

Stopped Tuesday, September 13, 2016 18:00:26

Total Volume 713.10 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.001 l/min

Ending Leak Rate -0.003 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Tuesday, September 13, 2016 6:00:28	0.081	0.23	50.3
Tuesday, September 13, 2016 6:05:28	0.991	5.18	50.4
Tuesday, September 13, 2016 6:10:29	0.990	10.15	50.5
Tuesday, September 13, 2016 6:15:29	0.990	15.10	50.1
Tuesday, September 13, 2016 6:20:30	0.990	20.07	50.1
Tuesday, September 13, 2016 6:25:30	0.990	25.02	50.1
Tuesday, September 13, 2016 6:30:31	0.990	29.99	50.4
Tuesday, September 13, 2016 6:35:31	0.990	34.94	49.5
Tuesday, September 13, 2016 6:40:32	0.991	39.91	49.6
Tuesday, September 13, 2016 6:45:32	0.991	44.87	50.8
Tuesday, September 13, 2016 6:50:33	0.991	49.84	50.8
Tuesday, September 13, 2016 6:55:34	0.991	54.80	50.0
Tuesday, September 13, 2016 7:00:34	0.991	59.76	50.1
Tuesday, September 13, 2016 7:05:35	0.991	64.73	50.9
Tuesday, September 13, 2016 7:10:35	0.991	69.68	50.7
Tuesday, September 13, 2016 7:15:36	0.991	74.65	49.8
Tuesday, September 13, 2016 7:20:36	0.991	79.60	49.7
Tuesday, September 13, 2016 7:25:37	0.991	84.57	50.5
Tuesday, September 13, 2016 7:30:37	0.991	89.52	51.0
Tuesday, September 13, 2016 7:35:38	0.991	94.49	50.3
Tuesday, September 13, 2016 7:40:38	0.991	99.45	50.8
Tuesday, September 13, 2016 7:45:39	0.991	104.41	50.4
Tuesday, September 13, 2016 7:50:39	0.991	109.37	50.1
Tuesday, September 13, 2016 7:55:40	0.991	114.34	50.3
Tuesday, September 13, 2016 8:00:41	0.991	119.31	50.1
Tuesday, September 13, 2016 8:05:41	0.991	124.26	50.0
Tuesday, September 13, 2016 8:10:42	0.991	129.23	50.9
Tuesday, September 13, 2016 8:15:42	0.991	134.18	50.2
Tuesday, September 13, 2016 8:20:43	0.991	139.15	50.0
Tuesday, September 13, 2016 8:25:43	0.991	144.10	50.9
Tuesday, September 13, 2016 8:30:44	0.991	149.07	50.6
Tuesday, September 13, 2016 8:35:44	0.991	154.03	50.1
Tuesday, September 13, 2016 8:40:45	0.991	159.00	50.1

Tuesday, September 13, 2016 8:45:45 0.991	163.95	49.7
Tuesday, September 13, 2016 8:50:46 0.991	168.92	49.7
Tuesday, September 13, 2016 8:55:46 0.991	173.87	50.5
Tuesday, September 13, 2016 9:00:47 0.991	178.84	50.1
Tuesday, September 13, 2016 9:05:47 0.991	183.79	50.9
Tuesday, September 13, 2016 9:10:48 0.991	188.76	50.1
Tuesday, September 13, 2016 9:15:48 0.991	193.72	50.1
Tuesday, September 13, 2016 9:20:49 0.991	198.69	50.4
Tuesday, September 13, 2016 9:25:49 0.991	203.64	50.7
Tuesday, September 13, 2016 9:30:50 0.991	208.61	50.1
Tuesday, September 13, 2016 9:35:51 0.991	213.58	51.0
Tuesday, September 13, 2016 9:40:51 0.991	218.53	50.7
Tuesday, September 13, 2016 9:45:52 0.991	223.50	50.1
Tuesday, September 13, 2016 9:50:52 0.991	228.45	50.5
Tuesday, September 13, 2016 9:55:53 0.991	233.42	50.1
Tuesday, September 13, 2016 10:00:53 0.991	238.38	49.7
Tuesday, September 13, 2016 10:05:54 0.991	243.35	50.5
Tuesday, September 13, 2016 10:10:54 0.991	248.30	50.8
Tuesday, September 13, 2016 10:15:55 0.991	253.27	50.1
Tuesday, September 13, 2016 10:20:55 0.991	258.22	50.8
Tuesday, September 13, 2016 10:25:56 0.991	263.19	50.8
Tuesday, September 13, 2016 10:30:56 0.991	268.15	50.1
Tuesday, September 13, 2016 10:35:57 0.991	273.11	50.9
Tuesday, September 13, 2016 10:40:58 0.991	278.08	50.3
Tuesday, September 13, 2016 10:45:58 0.991	283.04	50.4
Tuesday, September 13, 2016 10:50:59 0.991	288.01	50.5
Tuesday, September 13, 2016 10:55:59 0.991	292.96	50.5
Tuesday, September 13, 2016 11:01:00 0.991	297.93	50.8
Tuesday, September 13, 2016 11:06:00 0.991	302.88	50.7
Tuesday, September 13, 2016 11:11:01 0.991	307.85	50.4
Tuesday, September 13, 2016 11:16:02 0.991	312.82	50.3
Tuesday, September 13, 2016 11:21:02 0.991	317.77	50.6
Tuesday, September 13, 2016 11:26:03 0.991	322.74	50.1
Tuesday, September 13, 2016 11:31:03 0.991	327.70	49.9
Tuesday, September 13, 2016 11:36:04 0.991	332.67	51.0
Tuesday, September 13, 2016 11:41:04 0.991	337.62	50.5
Tuesday, September 13, 2016 11:46:05 0.991	342.59	50.5
Tuesday, September 13, 2016 11:51:05 0.991	347.54	50.4
Tuesday, September 13, 2016 11:56:06 0.991	352.51	50.1
Tuesday, September 13, 2016 12:01:06 0.991	357.47	50.5
Tuesday, September 13, 2016 12:06:07 0.991	362.44	50.1
Tuesday, September 13, 2016 12:11:08 0.991	367.41	49.7
Tuesday, September 13, 2016 12:16:08 0.991	372.36	50.6
Tuesday, September 13, 2016 12:21:09 0.991	377.33	50.9
Tuesday, September 13, 2016 12:26:09 0.991	382.28	50.9
Tuesday, September 13, 2016 12:31:10 0.991	387.25	50.0
Tuesday, September 13, 2016 12:36:10 0.991	392.21	50.5
Tuesday, September 13, 2016 12:41:11 0.991	397.18	50.2
Tuesday, September 13, 2016 12:46:12 0.991	402.15	50.9
Tuesday, September 13, 2016 12:51:12 0.991	407.10	51.0
Tuesday, September 13, 2016 12:56:13 0.991	412.07	50.6
Tuesday, September 13, 2016 13:01:13 0.991	417.02	50.5
Tuesday, September 13, 2016 13:06:14 0.991	421.99	50.4
Tuesday, September 13, 2016 13:11:14 0.991	426.95	50.6

Tuesday, September 13, 2016 13:16:15 0.991	431.92	50.5
Tuesday, September 13, 2016 13:21:15 0.991	436.87	50.3
Tuesday, September 13, 2016 13:26:16 0.991	441.84	50.2
Tuesday, September 13, 2016 13:31:17 0.991	446.81	50.2
Tuesday, September 13, 2016 13:36:17 0.991	451.76	50.2
Tuesday, September 13, 2016 13:41:18 0.991	456.73	49.7
Tuesday, September 13, 2016 13:46:18 0.991	461.69	49.8
Tuesday, September 13, 2016 13:51:19 0.991	466.66	50.4
Tuesday, September 13, 2016 13:56:19 0.991	471.61	50.7
Tuesday, September 13, 2016 14:01:20 0.991	476.58	50.7
Tuesday, September 13, 2016 14:06:20 0.991	481.53	50.5
Tuesday, September 13, 2016 14:11:21 0.991	486.50	50.5
Tuesday, September 13, 2016 14:16:22 0.991	491.47	50.5
Tuesday, September 13, 2016 14:21:22 0.991	496.43	50.3
Tuesday, September 13, 2016 14:26:23 0.991	501.40	50.6
Tuesday, September 13, 2016 14:31:23 0.991	506.35	50.6
Tuesday, September 13, 2016 14:36:24 0.991	511.32	50.3
Tuesday, September 13, 2016 14:41:24 0.991	516.27	50.5
Tuesday, September 13, 2016 14:46:25 0.991	521.24	49.8
Tuesday, September 13, 2016 14:51:26 0.991	526.21	50.2
Tuesday, September 13, 2016 14:56:26 0.991	531.16	51.0
Tuesday, September 13, 2016 15:01:27 0.991	536.13	50.9
Tuesday, September 13, 2016 15:06:27 0.991	541.09	49.5
Tuesday, September 13, 2016 15:11:28 0.991	546.06	49.9
Tuesday, September 13, 2016 15:16:29 0.991	551.03	50.8
Tuesday, September 13, 2016 15:21:29 0.991	555.98	50.9
Tuesday, September 13, 2016 15:26:30 0.991	560.95	50.1
Tuesday, September 13, 2016 15:31:30 0.991	565.90	50.6
Tuesday, September 13, 2016 15:36:31 0.991	570.87	50.5
Tuesday, September 13, 2016 15:41:31 0.991	575.83	50.5
Tuesday, September 13, 2016 15:46:32 0.991	580.80	50.9
Tuesday, September 13, 2016 15:51:32 0.991	585.75	50.5
Tuesday, September 13, 2016 15:56:33 0.991	590.72	50.5
Tuesday, September 13, 2016 16:01:33 0.991	595.67	50.1
Tuesday, September 13, 2016 16:06:34 0.991	600.64	50.6
Tuesday, September 13, 2016 16:11:35 0.991	605.61	50.7
Tuesday, September 13, 2016 16:16:35 0.991	610.56	50.3
Tuesday, September 13, 2016 16:21:36 0.991	615.53	50.8
Tuesday, September 13, 2016 16:26:36 0.991	620.49	50.5
Tuesday, September 13, 2016 16:31:37 0.991	625.46	50.8
Tuesday, September 13, 2016 16:36:37 0.991	630.41	50.5
Tuesday, September 13, 2016 16:41:38 0.991	635.38	50.7
Tuesday, September 13, 2016 16:46:39 0.991	640.35	50.9
Tuesday, September 13, 2016 16:51:39 0.991	645.30	49.7
Tuesday, September 13, 2016 16:56:40 0.991	650.27	50.7
Tuesday, September 13, 2016 17:01:40 0.991	655.22	50.6
Tuesday, September 13, 2016 17:06:41 0.991	660.19	50.1
Tuesday, September 13, 2016 17:11:41 0.991	665.15	50.9
Tuesday, September 13, 2016 17:16:42 0.991	670.12	50.6
Tuesday, September 13, 2016 17:21:42 0.991	675.07	50.5
Tuesday, September 13, 2016 17:26:43 0.991	680.04	50.4
Tuesday, September 13, 2016 17:31:43 0.991	684.99	50.3
Tuesday, September 13, 2016 17:36:44 0.991	689.96	50.5
Tuesday, September 13, 2016 17:41:45 0.991	694.93	50.3

Tuesday, September 13, 2016 17:46:45 0.991	699.89	51.0
Tuesday, September 13, 2016 17:51:46 0.991	704.86	50.3
Tuesday, September 13, 2016 17:56:46 0.991	709.81	50.4
Tuesday, September 13, 2016 18:00:05 0.991	713.09	50.3

aqms5

formaldehyde002

Ch. 2 Cartridge Started Tuesday, September 13, 2016 18:15:02

Flow Rate Set Point 1.00 l/min

Stopped Wednesday, September 14, 2016 6:15:21

Total Volume 712.77 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.009 l/min

Ending Leak Rate 0.003 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Tuesday, September 13, 2016 18:15:29	0.087	0.22	50.8
Tuesday, September 13, 2016 18:20:29	0.990	5.18	50.9
Tuesday, September 13, 2016 18:25:30	0.990	10.15	50.2
Tuesday, September 13, 2016 18:30:31	0.990	15.11	51.1
Tuesday, September 13, 2016 18:35:31	0.990	20.06	50.2
Tuesday, September 13, 2016 18:40:32	0.990	25.03	50.1
Tuesday, September 13, 2016 18:45:32	0.990	29.98	50.2
Tuesday, September 13, 2016 18:50:33	0.990	34.95	50.9
Tuesday, September 13, 2016 18:55:33	0.990	39.90	49.8
Tuesday, September 13, 2016 19:00:34	0.990	44.87	50.3
Tuesday, September 13, 2016 19:05:35	0.990	49.84	50.2
Tuesday, September 13, 2016 19:10:35	0.990	54.79	51.0
Tuesday, September 13, 2016 19:15:36	0.990	59.76	49.8
Tuesday, September 13, 2016 19:20:36	0.990	64.71	49.7
Tuesday, September 13, 2016 19:25:37	0.990	69.68	51.0
Tuesday, September 13, 2016 19:30:38	0.990	74.64	50.6
Tuesday, September 13, 2016 19:35:38	0.990	79.60	49.7
Tuesday, September 13, 2016 19:40:39	0.990	84.56	50.8
Tuesday, September 13, 2016 19:45:39	0.990	89.51	51.1
Tuesday, September 13, 2016 19:50:40	0.990	94.48	50.7
Tuesday, September 13, 2016 19:55:41	0.990	99.43	49.7
Tuesday, September 13, 2016 20:00:41	0.990	104.40	50.7
Tuesday, September 13, 2016 20:05:42	0.990	109.37	50.5
Tuesday, September 13, 2016 20:10:42	0.990	114.32	49.7
Tuesday, September 13, 2016 20:15:43	0.990	119.29	50.8
Tuesday, September 13, 2016 20:20:43	0.990	124.24	49.7
Tuesday, September 13, 2016 20:25:44	0.990	129.21	50.2
Tuesday, September 13, 2016 20:30:44	0.990	134.16	50.8
Tuesday, September 13, 2016 20:35:45	0.990	139.13	50.1
Tuesday, September 13, 2016 20:40:46	0.990	144.10	50.9
Tuesday, September 13, 2016 20:45:46	0.990	149.05	50.7
Tuesday, September 13, 2016 20:50:47	0.990	154.02	50.5
Tuesday, September 13, 2016 20:55:47	0.990	158.97	50.0

Tuesday, September 13, 2016 21:00:48 0.990	163.93	50.4
Tuesday, September 13, 2016 21:05:48 0.990	168.89	50.9
Tuesday, September 13, 2016 21:10:49 0.990	173.85	50.6
Tuesday, September 13, 2016 21:15:50 0.990	178.82	50.3
Tuesday, September 13, 2016 21:20:50 0.990	183.77	50.0
Tuesday, September 13, 2016 21:25:51 0.990	188.74	51.3
Tuesday, September 13, 2016 21:30:51 0.990	193.69	50.2
Tuesday, September 13, 2016 21:35:52 0.990	198.66	49.8
Tuesday, September 13, 2016 21:40:53 0.990	203.63	50.7
Tuesday, September 13, 2016 21:45:53 0.990	208.58	50.3
Tuesday, September 13, 2016 21:50:54 0.990	213.55	50.1
Tuesday, September 13, 2016 21:55:54 0.990	218.50	50.4
Tuesday, September 13, 2016 22:00:55 0.990	223.47	50.3
Tuesday, September 13, 2016 22:05:55 0.990	228.42	50.6
Tuesday, September 13, 2016 22:10:56 0.990	233.39	50.9
Tuesday, September 13, 2016 22:15:57 0.990	238.35	51.2
Tuesday, September 13, 2016 22:20:57 0.990	243.31	50.8
Tuesday, September 13, 2016 22:25:58 0.990	248.27	51.0
Tuesday, September 13, 2016 22:30:58 0.990	253.23	50.3
Tuesday, September 13, 2016 22:35:59 0.990	258.19	50.4
Tuesday, September 13, 2016 22:40:59 0.990	263.14	49.8
Tuesday, September 13, 2016 22:46:00 0.990	268.11	50.4
Tuesday, September 13, 2016 22:51:01 0.990	273.08	50.7
Tuesday, September 13, 2016 22:56:01 0.990	278.03	49.7
Tuesday, September 13, 2016 23:01:02 0.990	283.00	50.2
Tuesday, September 13, 2016 23:06:02 0.990	287.95	50.3
Tuesday, September 13, 2016 23:11:03 0.990	292.92	50.1
Tuesday, September 13, 2016 23:16:03 0.990	297.87	50.3
Tuesday, September 13, 2016 23:21:04 0.990	302.84	49.9
Tuesday, September 13, 2016 23:26:05 0.990	307.81	50.5
Tuesday, September 13, 2016 23:31:05 0.990	312.76	51.0
Tuesday, September 13, 2016 23:36:06 0.990	317.72	49.8
Tuesday, September 13, 2016 23:41:06 0.990	322.68	50.5
Tuesday, September 13, 2016 23:46:07 0.990	327.64	50.8
Tuesday, September 13, 2016 23:51:07 0.990	332.60	50.9
Tuesday, September 13, 2016 23:56:08 0.990	337.56	50.6
Wednesday, September 14, 2016 0:01:09 0.990	342.53	50.6
Wednesday, September 14, 2016 0:06:09 0.990	347.48	51.1
Wednesday, September 14, 2016 0:11:10 0.990	352.45	49.7
Wednesday, September 14, 2016 0:16:10 0.990	357.40	50.5
Wednesday, September 14, 2016 0:21:11 0.990	362.37	49.8
Wednesday, September 14, 2016 0:26:12 0.990	367.34	50.9
Wednesday, September 14, 2016 0:31:12 0.990	372.29	50.6
Wednesday, September 14, 2016 0:36:13 0.990	377.26	50.5
Wednesday, September 14, 2016 0:41:13 0.990	382.21	50.1
Wednesday, September 14, 2016 0:46:14 0.990	387.18	50.2
Wednesday, September 14, 2016 0:51:15 0.990	392.14	50.4
Wednesday, September 14, 2016 0:56:15 0.990	397.09	50.6
Wednesday, September 14, 2016 1:01:16 0.990	402.06	50.2
Wednesday, September 14, 2016 1:06:16 0.990	407.01	50.7
Wednesday, September 14, 2016 1:11:17 0.990	411.98	50.0
Wednesday, September 14, 2016 1:16:18 0.990	416.95	50.8
Wednesday, September 14, 2016 1:21:18 0.990	421.90	49.7
Wednesday, September 14, 2016 1:26:19 0.990	426.87	49.8

Wednesday, September 14, 2016 1:31:19 0.990	431.82	50.8
Wednesday, September 14, 2016 1:36:20 0.990	436.79	50.7
Wednesday, September 14, 2016 1:41:20 0.990	441.74	50.6
Wednesday, September 14, 2016 1:46:21 0.990	446.71	50.0
Wednesday, September 14, 2016 1:51:21 0.990	451.66	49.4
Wednesday, September 14, 2016 1:56:22 0.990	456.63	50.1
Wednesday, September 14, 2016 2:01:23 0.990	461.59	50.8
Wednesday, September 14, 2016 2:06:23 0.990	466.55	50.8
Wednesday, September 14, 2016 2:11:24 0.990	471.51	50.4
Wednesday, September 14, 2016 2:16:24 0.990	476.46	50.9
Wednesday, September 14, 2016 2:21:25 0.990	481.43	50.1
Wednesday, September 14, 2016 2:26:25 0.990	486.38	50.8
Wednesday, September 14, 2016 2:31:26 0.990	491.35	50.1
Wednesday, September 14, 2016 2:36:27 0.990	496.32	50.6
Wednesday, September 14, 2016 2:41:27 0.990	501.27	50.6
Wednesday, September 14, 2016 2:46:28 0.990	506.24	50.4
Wednesday, September 14, 2016 2:51:28 0.990	511.19	50.5
Wednesday, September 14, 2016 2:56:29 0.990	516.16	50.4
Wednesday, September 14, 2016 3:01:30 0.990	521.13	50.5
Wednesday, September 14, 2016 3:06:30 0.990	526.08	50.5
Wednesday, September 14, 2016 3:11:31 0.990	531.05	50.1
Wednesday, September 14, 2016 3:16:31 0.990	536.00	50.5
Wednesday, September 14, 2016 3:21:32 0.990	540.97	50.6
Wednesday, September 14, 2016 3:26:32 0.990	545.92	50.1
Wednesday, September 14, 2016 3:31:33 0.990	550.89	50.5
Wednesday, September 14, 2016 3:36:33 0.990	555.84	50.5
Wednesday, September 14, 2016 3:41:34 0.990	560.81	50.7
Wednesday, September 14, 2016 3:46:35 0.990	565.78	51.0
Wednesday, September 14, 2016 3:51:35 0.990	570.73	50.6
Wednesday, September 14, 2016 3:56:36 0.990	575.70	49.9
Wednesday, September 14, 2016 4:01:36 0.990	580.65	49.8
Wednesday, September 14, 2016 4:06:37 0.990	585.62	50.9
Wednesday, September 14, 2016 4:11:38 0.990	590.59	50.2
Wednesday, September 14, 2016 4:16:38 0.990	595.54	50.5
Wednesday, September 14, 2016 4:21:39 0.990	600.51	50.1
Wednesday, September 14, 2016 4:26:39 0.990	605.46	51.0
Wednesday, September 14, 2016 4:31:40 0.990	610.43	50.5
Wednesday, September 14, 2016 4:36:40 0.990	615.38	50.1
Wednesday, September 14, 2016 4:41:41 0.990	620.35	50.3
Wednesday, September 14, 2016 4:46:42 0.990	625.31	50.5
Wednesday, September 14, 2016 4:51:42 0.990	630.27	49.9
Wednesday, September 14, 2016 4:56:43 0.990	635.24	50.5
Wednesday, September 14, 2016 5:01:43 0.990	640.19	50.7
Wednesday, September 14, 2016 5:06:44 0.990	645.16	50.3
Wednesday, September 14, 2016 5:11:45 0.990	650.12	50.7
Wednesday, September 14, 2016 5:16:45 0.990	655.08	50.0
Wednesday, September 14, 2016 5:21:46 0.990	660.04	50.6
Wednesday, September 14, 2016 5:26:46 0.990	665.00	50.2
Wednesday, September 14, 2016 5:31:47 0.990	669.96	49.8
Wednesday, September 14, 2016 5:36:47 0.990	674.92	50.6
Wednesday, September 14, 2016 5:41:48 0.990	679.88	50.6
Wednesday, September 14, 2016 5:46:49 0.990	684.85	50.4
Wednesday, September 14, 2016 5:51:49 0.990	689.80	51.1
Wednesday, September 14, 2016 5:56:50 0.990	694.77	50.1

Wednesday, September 14, 2016 6:01:50	0.990	699.73	50.5
Wednesday, September 14, 2016 6:06:51	0.990	704.69	50.1
Wednesday, September 14, 2016 6:11:52	0.990	709.66	50.7
Wednesday, September 14, 2016 6:15:00	0.990	712.77	51.0

aqms5

formaldehyde001

Ch. 1 Cartridge Started Sunday, September 25, 2016 6:00:04

Flow Rate Set Point 1.00 l/min

Stopped Sunday, September 25, 2016 18:00:24

Total Volume 712.98 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.991 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate -0.003 l/min

Ending Leak Rate -0.006 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Sunday, September 25, 2016 6:00:31	0.078	0.23	49.8
Sunday, September 25, 2016 6:05:31	0.991	5.18	50.1
Sunday, September 25, 2016 6:10:32	0.991	10.15	50.0
Sunday, September 25, 2016 6:15:32	0.990	15.10	49.8
Sunday, September 25, 2016 6:20:33	0.990	20.07	50.6
Sunday, September 25, 2016 6:25:33	0.990	25.02	50.5
Sunday, September 25, 2016 6:30:34	0.990	29.99	50.0
Sunday, September 25, 2016 6:35:34	0.991	34.94	50.3
Sunday, September 25, 2016 6:40:35	0.990	39.91	50.4
Sunday, September 25, 2016 6:45:35	0.990	44.87	49.9
Sunday, September 25, 2016 6:50:36	0.991	49.83	50.3
Sunday, September 25, 2016 6:55:37	0.990	54.80	50.2
Sunday, September 25, 2016 7:00:37	0.991	59.76	50.0
Sunday, September 25, 2016 7:05:38	0.991	64.73	50.1
Sunday, September 25, 2016 7:10:38	0.991	69.68	50.0
Sunday, September 25, 2016 7:15:39	0.991	74.65	50.5
Sunday, September 25, 2016 7:20:39	0.991	79.60	50.9
Sunday, September 25, 2016 7:25:40	0.991	84.57	49.5
Sunday, September 25, 2016 7:30:40	0.991	89.52	50.2
Sunday, September 25, 2016 7:35:41	0.991	94.49	50.9
Sunday, September 25, 2016 7:40:41	0.991	99.44	50.4
Sunday, September 25, 2016 7:45:42	0.991	104.41	50.6
Sunday, September 25, 2016 7:50:43	0.991	109.38	50.7
Sunday, September 25, 2016 7:55:43	0.991	114.34	49.8
Sunday, September 25, 2016 8:00:44	0.991	119.31	50.8
Sunday, September 25, 2016 8:05:44	0.991	124.26	50.9
Sunday, September 25, 2016 8:10:45	0.991	129.23	50.5
Sunday, September 25, 2016 8:15:45	0.991	134.18	50.5
Sunday, September 25, 2016 8:20:46	0.991	139.15	50.7
Sunday, September 25, 2016 8:25:46	0.991	144.10	50.4
Sunday, September 25, 2016 8:30:47	0.991	149.07	50.3
Sunday, September 25, 2016 8:35:47	0.991	154.03	50.1
Sunday, September 25, 2016 8:40:48	0.991	159.00	50.9

Sunday, September 25, 2016 8:45:49 0.991	163.97	49.9
Sunday, September 25, 2016 8:50:49 0.991	168.92	50.0
Sunday, September 25, 2016 8:55:50 0.991	173.89	50.1
Sunday, September 25, 2016 9:00:50 0.991	178.84	50.5
Sunday, September 25, 2016 9:05:51 0.991	183.81	49.8
Sunday, September 25, 2016 9:10:51 0.991	188.76	49.9
Sunday, September 25, 2016 9:15:52 0.991	193.73	50.7
Sunday, September 25, 2016 9:20:52 0.991	198.69	50.2
Sunday, September 25, 2016 9:25:53 0.991	203.66	50.3
Sunday, September 25, 2016 9:30:53 0.991	208.61	50.5
Sunday, September 25, 2016 9:35:54 0.991	213.58	50.5
Sunday, September 25, 2016 9:40:54 0.991	218.53	50.5
Sunday, September 25, 2016 9:45:55 0.991	223.50	49.7
Sunday, September 25, 2016 9:50:55 0.991	228.45	50.3
Sunday, September 25, 2016 9:55:56 0.991	233.42	50.5
Sunday, September 25, 2016 10:00:56 0.991	238.38	50.6
Sunday, September 25, 2016 10:05:57 0.991	243.34	50.0
Sunday, September 25, 2016 10:10:58 0.991	248.31	50.6
Sunday, September 25, 2016 10:15:58 0.991	253.27	49.7
Sunday, September 25, 2016 10:20:59 0.991	258.24	50.6
Sunday, September 25, 2016 10:25:59 0.991	263.19	50.3
Sunday, September 25, 2016 10:31:00 0.991	268.16	50.5
Sunday, September 25, 2016 10:36:00 0.991	273.11	50.6
Sunday, September 25, 2016 10:41:01 0.991	278.08	50.4
Sunday, September 25, 2016 10:46:01 0.991	283.03	50.0
Sunday, September 25, 2016 10:51:02 0.991	288.00	50.0
Sunday, September 25, 2016 10:56:02 0.991	292.96	49.9
Sunday, September 25, 2016 11:01:03 0.991	297.93	50.8
Sunday, September 25, 2016 11:06:03 0.991	302.88	50.8
Sunday, September 25, 2016 11:11:04 0.991	307.85	49.9
Sunday, September 25, 2016 11:16:04 0.991	312.80	50.9
Sunday, September 25, 2016 11:21:05 0.991	317.77	50.0
Sunday, September 25, 2016 11:26:06 0.991	322.74	50.7
Sunday, September 25, 2016 11:31:06 0.991	327.69	50.8
Sunday, September 25, 2016 11:36:07 0.991	332.66	50.9
Sunday, September 25, 2016 11:41:07 0.991	337.62	50.6
Sunday, September 25, 2016 11:46:08 0.991	342.58	50.9
Sunday, September 25, 2016 11:51:08 0.991	347.54	50.1
Sunday, September 25, 2016 11:56:09 0.991	352.51	50.1
Sunday, September 25, 2016 12:01:09 0.991	357.46	49.9
Sunday, September 25, 2016 12:06:10 0.991	362.43	50.7
Sunday, September 25, 2016 12:11:10 0.991	367.38	50.5
Sunday, September 25, 2016 12:16:11 0.991	372.35	50.5
Sunday, September 25, 2016 12:21:11 0.991	377.30	50.1
Sunday, September 25, 2016 12:26:12 0.991	382.27	50.5
Sunday, September 25, 2016 12:31:13 0.991	387.24	50.6
Sunday, September 25, 2016 12:36:13 0.991	392.20	50.2
Sunday, September 25, 2016 12:41:14 0.991	397.17	50.7
Sunday, September 25, 2016 12:46:14 0.991	402.12	50.3
Sunday, September 25, 2016 12:51:15 0.991	407.09	50.5
Sunday, September 25, 2016 12:56:15 0.991	412.04	50.7
Sunday, September 25, 2016 13:01:16 0.991	417.01	50.4
Sunday, September 25, 2016 13:06:16 0.991	421.96	50.5
Sunday, September 25, 2016 13:11:17 0.991	426.93	50.7

Sunday, September 25, 2016 13:16:18 0.991	431.90	50.5
Sunday, September 25, 2016 13:21:18 0.991	436.85	49.9
Sunday, September 25, 2016 13:26:19 0.991	441.82	50.5
Sunday, September 25, 2016 13:31:19 0.991	446.78	50.6
Sunday, September 25, 2016 13:36:20 0.991	451.75	50.5
Sunday, September 25, 2016 13:41:20 0.991	456.70	50.2
Sunday, September 25, 2016 13:46:21 0.991	461.67	50.8
Sunday, September 25, 2016 13:51:21 0.991	466.62	50.5
Sunday, September 25, 2016 13:56:22 0.991	471.59	50.2
Sunday, September 25, 2016 14:01:22 0.991	476.54	49.8
Sunday, September 25, 2016 14:06:23 0.991	481.51	49.3
Sunday, September 25, 2016 14:11:23 0.991	486.47	50.3
Sunday, September 25, 2016 14:16:24 0.991	491.44	50.4
Sunday, September 25, 2016 14:21:25 0.991	496.41	49.8
Sunday, September 25, 2016 14:26:25 0.991	501.36	50.3
Sunday, September 25, 2016 14:31:26 0.991	506.33	50.4
Sunday, September 25, 2016 14:36:26 0.991	511.28	50.1
Sunday, September 25, 2016 14:41:27 0.991	516.25	49.8
Sunday, September 25, 2016 14:46:27 0.991	521.20	50.9
Sunday, September 25, 2016 14:51:28 0.991	526.17	50.9
Sunday, September 25, 2016 14:56:29 0.991	531.14	49.8
Sunday, September 25, 2016 15:01:29 0.991	536.10	50.5
Sunday, September 25, 2016 15:06:30 0.991	541.06	50.8
Sunday, September 25, 2016 15:11:30 0.991	546.02	50.1
Sunday, September 25, 2016 15:16:31 0.991	550.99	49.8
Sunday, September 25, 2016 15:21:31 0.991	555.94	50.5
Sunday, September 25, 2016 15:26:32 0.991	560.91	50.7
Sunday, September 25, 2016 15:31:33 0.991	565.88	50.5
Sunday, September 25, 2016 15:36:33 0.991	570.83	50.3
Sunday, September 25, 2016 15:41:34 0.991	575.80	50.6
Sunday, September 25, 2016 15:46:34 0.991	580.76	50.8
Sunday, September 25, 2016 15:51:35 0.991	585.73	50.7
Sunday, September 25, 2016 15:56:35 0.991	590.68	50.5
Sunday, September 25, 2016 16:01:36 0.991	595.65	50.5
Sunday, September 25, 2016 16:06:36 0.991	600.60	50.1
Sunday, September 25, 2016 16:11:37 0.991	605.57	50.5
Sunday, September 25, 2016 16:16:38 0.991	610.54	49.7
Sunday, September 25, 2016 16:21:38 0.991	615.49	50.5
Sunday, September 25, 2016 16:26:39 0.991	620.46	50.1
Sunday, September 25, 2016 16:31:39 0.991	625.42	50.1
Sunday, September 25, 2016 16:36:40 0.991	630.39	49.7
Sunday, September 25, 2016 16:41:40 0.991	635.34	50.4
Sunday, September 25, 2016 16:46:41 0.991	640.31	50.2
Sunday, September 25, 2016 16:51:42 0.991	645.28	50.4
Sunday, September 25, 2016 16:56:42 0.991	650.23	51.0
Sunday, September 25, 2016 17:01:43 0.991	655.20	50.0
Sunday, September 25, 2016 17:06:43 0.991	660.15	50.2
Sunday, September 25, 2016 17:11:44 0.991	665.12	50.6
Sunday, September 25, 2016 17:16:44 0.991	670.08	50.2
Sunday, September 25, 2016 17:21:45 0.991	675.05	50.0
Sunday, September 25, 2016 17:26:46 0.991	680.00	50.5
Sunday, September 25, 2016 17:31:46 0.991	684.97	50.2
Sunday, September 25, 2016 17:36:47 0.991	689.94	50.6
Sunday, September 25, 2016 17:41:47 0.991	694.89	50.6

Sunday, September 25, 2016 17:46:48	0.991	699.86	50.6
Sunday, September 25, 2016 17:51:48	0.991	704.81	50.9
Sunday, September 25, 2016 17:56:49	0.991	709.78	50.5
Sunday, September 25, 2016 18:00:02	0.991	712.97	50.0

aqms5

formaldehyde002

Ch. 2 Cartridge Started Sunday, September 25, 2016 18:15:05

Flow Rate Set Point 1.00 l/min

Stopped Monday, September 26, 2016 6:15:25

Total Volume 712.76 liters

Total Sample Time 12.00 hours

Average Flow Rate 0.990 l/min

Minimum Flow Rate 0.990 l/min

Maximum Flow Rate 0.991 l/min

Pre Start Leak Rate 0.002 l/min

Ending Leak Rate -0.005 l/min

Flow Controller Zero -0.004 l/min

Error Code 0

Error Status OK No Errors

Time	Flow Rate	Volume	Temp
Sunday, September 25, 2016 18:15:32	0.080	0.22	50.7
Sunday, September 25, 2016 18:20:32	0.990	5.18	50.9
Sunday, September 25, 2016 18:25:33	0.990	10.15	50.4
Sunday, September 25, 2016 18:30:33	0.990	15.10	51.0
Sunday, September 25, 2016 18:35:34	0.990	20.06	50.4
Sunday, September 25, 2016 18:40:34	0.990	25.02	50.4
Sunday, September 25, 2016 18:45:35	0.990	29.98	50.2
Sunday, September 25, 2016 18:50:35	0.990	34.93	50.8
Sunday, September 25, 2016 18:55:36	0.990	39.90	50.1
Sunday, September 25, 2016 19:00:37	0.990	44.87	49.8
Sunday, September 25, 2016 19:05:37	0.990	49.82	50.5
Sunday, September 25, 2016 19:10:38	0.990	54.79	50.5
Sunday, September 25, 2016 19:15:38	0.990	59.74	50.3
Sunday, September 25, 2016 19:20:39	0.990	64.71	50.7
Sunday, September 25, 2016 19:25:39	0.990	69.66	50.7
Sunday, September 25, 2016 19:30:40	0.990	74.63	50.8
Sunday, September 25, 2016 19:35:41	0.990	79.59	50.2
Sunday, September 25, 2016 19:40:41	0.990	84.55	50.1
Sunday, September 25, 2016 19:45:42	0.990	89.51	51.0
Sunday, September 25, 2016 19:50:42	0.990	94.47	50.5
Sunday, September 25, 2016 19:55:43	0.990	99.43	50.4
Sunday, September 25, 2016 20:00:43	0.990	104.38	50.5
Sunday, September 25, 2016 20:05:44	0.990	109.35	50.4
Sunday, September 25, 2016 20:10:45	0.990	114.32	51.0
Sunday, September 25, 2016 20:15:45	0.990	119.27	51.0
Sunday, September 25, 2016 20:20:46	0.990	124.24	50.5
Sunday, September 25, 2016 20:25:46	0.990	129.19	50.1
Sunday, September 25, 2016 20:30:47	0.990	134.16	50.1
Sunday, September 25, 2016 20:35:47	0.990	139.11	50.2
Sunday, September 25, 2016 20:40:48	0.990	144.08	49.7
Sunday, September 25, 2016 20:45:48	0.990	149.03	50.9
Sunday, September 25, 2016 20:50:49	0.990	154.00	50.2
Sunday, September 25, 2016 20:55:50	0.990	158.97	50.6

Sunday, September 25, 2016 21:00:50 0.990	163.92	50.9
Sunday, September 25, 2016 21:05:51 0.990	168.88	50.0
Sunday, September 25, 2016 21:10:51 0.990	173.84	50.9
Sunday, September 25, 2016 21:15:52 0.990	178.80	50.3
Sunday, September 25, 2016 21:20:52 0.990	183.75	51.0
Sunday, September 25, 2016 21:25:53 0.990	188.72	50.5
Sunday, September 25, 2016 21:30:54 0.990	193.69	50.5
Sunday, September 25, 2016 21:35:54 0.990	198.64	50.5
Sunday, September 25, 2016 21:40:55 0.990	203.61	50.3
Sunday, September 25, 2016 21:45:55 0.990	208.56	50.9
Sunday, September 25, 2016 21:50:56 0.990	213.53	50.5
Sunday, September 25, 2016 21:55:56 0.990	218.48	50.5
Sunday, September 25, 2016 22:00:57 0.990	223.45	50.6
Sunday, September 25, 2016 22:05:58 0.990	228.42	50.8
Sunday, September 25, 2016 22:10:58 0.990	233.37	50.2
Sunday, September 25, 2016 22:15:59 0.990	238.34	50.9
Sunday, September 25, 2016 22:20:59 0.990	243.29	50.6
Sunday, September 25, 2016 22:26:00 0.990	248.25	50.9
Sunday, September 25, 2016 22:31:00 0.990	253.21	50.5
Sunday, September 25, 2016 22:36:01 0.990	258.17	50.9
Sunday, September 25, 2016 22:41:01 0.990	263.12	50.5
Sunday, September 25, 2016 22:46:02 0.990	268.09	50.5
Sunday, September 25, 2016 22:51:03 0.990	273.06	50.7
Sunday, September 25, 2016 22:56:03 0.990	278.01	50.9
Sunday, September 25, 2016 23:01:04 0.990	282.98	50.4
Sunday, September 25, 2016 23:06:04 0.990	287.93	50.8
Sunday, September 25, 2016 23:11:05 0.990	292.90	50.6
Sunday, September 25, 2016 23:16:05 0.990	297.85	50.5
Sunday, September 25, 2016 23:21:06 0.990	302.82	50.2
Sunday, September 25, 2016 23:26:07 0.990	307.78	50.1
Sunday, September 25, 2016 23:31:07 0.990	312.74	50.1
Sunday, September 25, 2016 23:36:08 0.990	317.70	51.0
Sunday, September 25, 2016 23:41:08 0.990	322.65	50.5
Sunday, September 25, 2016 23:46:09 0.990	327.62	50.9
Sunday, September 25, 2016 23:51:09 0.990	332.57	50.5
Sunday, September 25, 2016 23:56:10 0.990	337.54	50.9
Monday, September 26, 2016 0:01:10 0.990	342.49	50.9
Monday, September 26, 2016 0:06:11 0.990	347.46	50.9
Monday, September 26, 2016 0:11:12 0.990	352.43	50.8
Monday, September 26, 2016 0:16:12 0.990	357.38	50.2
Monday, September 26, 2016 0:21:13 0.990	362.35	50.5
Monday, September 26, 2016 0:26:13 0.990	367.30	50.5
Monday, September 26, 2016 0:31:14 0.990	372.27	50.2
Monday, September 26, 2016 0:36:14 0.990	377.22	50.0
Monday, September 26, 2016 0:41:15 0.990	382.18	50.2
Monday, September 26, 2016 0:46:16 0.990	387.15	50.4
Monday, September 26, 2016 0:51:16 0.990	392.10	50.4
Monday, September 26, 2016 0:56:17 0.990	397.07	50.0
Monday, September 26, 2016 1:01:17 0.990	402.02	50.6
Monday, September 26, 2016 1:06:18 0.990	406.99	49.7
Monday, September 26, 2016 1:11:18 0.990	411.94	49.7
Monday, September 26, 2016 1:16:19 0.990	416.91	50.4
Monday, September 26, 2016 1:21:20 0.990	421.88	50.7
Monday, September 26, 2016 1:26:20 0.990	426.83	50.0

Monday, September 26, 2016 1:31:21 0.990	431.80	50.1
Monday, September 26, 2016 1:36:21 0.990	436.75	50.5
Monday, September 26, 2016 1:41:22 0.990	441.71	50.4
Monday, September 26, 2016 1:46:22 0.990	446.67	50.4
Monday, September 26, 2016 1:51:23 0.990	451.63	50.7
Monday, September 26, 2016 1:56:23 0.990	456.58	50.8
Monday, September 26, 2016 2:01:24 0.990	461.55	50.6
Monday, September 26, 2016 2:06:25 0.990	466.52	50.4
Monday, September 26, 2016 2:11:25 0.990	471.47	50.8
Monday, September 26, 2016 2:16:26 0.990	476.44	50.3
Monday, September 26, 2016 2:21:26 0.990	481.39	50.7
Monday, September 26, 2016 2:26:27 0.990	486.36	49.7
Monday, September 26, 2016 2:31:27 0.990	491.31	50.8
Monday, September 26, 2016 2:36:28 0.990	496.28	49.9
Monday, September 26, 2016 2:41:28 0.990	501.23	50.3
Monday, September 26, 2016 2:46:29 0.990	506.19	50.9
Monday, September 26, 2016 2:51:29 0.990	511.15	50.1
Monday, September 26, 2016 2:56:30 0.990	516.11	50.6
Monday, September 26, 2016 3:01:30 0.990	521.07	50.3
Monday, September 26, 2016 3:06:31 0.990	526.03	50.7
Monday, September 26, 2016 3:11:32 0.990	531.00	50.9
Monday, September 26, 2016 3:16:32 0.990	535.95	49.7
Monday, September 26, 2016 3:21:33 0.990	540.92	50.0
Monday, September 26, 2016 3:26:33 0.990	545.88	50.9
Monday, September 26, 2016 3:31:34 0.990	550.84	50.2
Monday, September 26, 2016 3:36:34 0.990	555.80	49.8
Monday, September 26, 2016 3:41:35 0.990	560.76	50.5
Monday, September 26, 2016 3:46:35 0.990	565.72	50.9
Monday, September 26, 2016 3:51:36 0.990	570.68	50.5
Monday, September 26, 2016 3:56:36 0.990	575.64	50.3
Monday, September 26, 2016 4:01:37 0.990	580.60	50.1
Monday, September 26, 2016 4:06:37 0.990	585.56	50.4
Monday, September 26, 2016 4:11:38 0.990	590.52	50.5
Monday, September 26, 2016 4:16:38 0.990	595.48	50.6
Monday, September 26, 2016 4:21:39 0.990	600.44	50.9
Monday, September 26, 2016 4:26:39 0.990	605.40	50.5
Monday, September 26, 2016 4:31:40 0.990	610.36	50.9
Monday, September 26, 2016 4:36:40 0.990	615.32	50.8
Monday, September 26, 2016 4:41:41 0.990	620.28	50.6
Monday, September 26, 2016 4:46:42 0.990	625.25	50.4
Monday, September 26, 2016 4:51:42 0.990	630.20	50.9
Monday, September 26, 2016 4:56:43 0.990	635.17	50.5
Monday, September 26, 2016 5:01:43 0.990	640.12	50.3
Monday, September 26, 2016 5:06:44 0.990	645.09	50.5
Monday, September 26, 2016 5:11:44 0.990	650.04	50.8
Monday, September 26, 2016 5:16:45 0.990	655.01	50.4
Monday, September 26, 2016 5:21:45 0.990	659.96	50.1
Monday, September 26, 2016 5:26:46 0.990	664.93	50.5
Monday, September 26, 2016 5:31:46 0.990	669.89	50.2
Monday, September 26, 2016 5:36:47 0.990	674.85	50.6
Monday, September 26, 2016 5:41:47 0.990	679.80	50.4
Monday, September 26, 2016 5:46:48 0.990	684.77	50.4
Monday, September 26, 2016 5:51:48 0.990	689.73	50.5
Monday, September 26, 2016 5:56:49 0.990	694.69	50.0

Monday, September 26, 2016 6:01:49 0.990	699.65	50.9
Monday, September 26, 2016 6:06:50 0.990	704.61	50.4
Monday, September 26, 2016 6:11:50 0.990	709.57	50.8
Monday, September 26, 2016 6:15:03 0.990	712.75	50.1

APPENDIX D

Laboratory Accreditation



OREGON

Environmental Laboratory Accreditation Program



NELAP Recognized

Eurofins Air Toxics, Inc
CA300005

180 Blue Ravine Road, Ste. B
Folsom, CA 95630

IS GRANTED APPROVAL BY ORELAP UNDER THE 2009 TNI STANDARDS, TO PERFORM ANALYSES ON ENVIRONMENTAL SAMPLES IN MATRICES AS LISTED BELOW :

<i>Air</i>	<i>Drinking Water</i>	<i>Non Potable Water</i>	<i>Solids and Chem. Waste</i>	<i>Tissue</i>
Chemistry				

AND AS RECORDED IN THE LIST OF APPROVED ANALYTES, METHODS, ANALYTICAL TECHNIQUES, AND FIELDS OF TESTING ISSUED CONCURRENTLY WITH THIS CERTIFICATE AND REVISED AS NECESSARY.

ACCREDITED STATUS DEPENDS ON SUCCESSFUL ONGOING PARTICIPATION IN THE PROGRAM AND CONTINUED COMPLIANCE WITH THE STANDARDS.

CUSTOMERS ARE URGED TO VERIFY THE LABORATORY'S CURRENT ACCREDITATION STATUS IN OREGON.

Gary K. Ward/MS
Oregon State Public Health Laboratory
ORELAP Administrator
3150 NW. 229th Ave, Suite 100
Hillsboro, OR 97124



ISSUE DATE: 10/18/2015
EXPIRATION DATE: 10/17/2016
Certificate No: CA300005 - 007



Oregon

Environmental Laboratory Accreditation Program



Department of Agriculture, Laboratory Division
Department of Environmental Quality, Laboratory Division
Oregon Health Authority, Public Health Division

NELAP Recognized

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

180 Blue Ravine Road, Ste. B
Folsom CA 95630

Issue Date: 10/18/2015

Expiration Date: 10/17/2016

As of 10/18/2015 *this list supercedes all previous lists for this certificate number.*
Customers. Please verify the current accreditation standing with ORELAP.

MATRIX : Air

Reference	Code	Description
ASTM D1945 03	30024443	Natural Gas by Gas Chromatography
Analyte Code	Analyte	
4938	2-Methylbutane (Isopentane)	
4942	2-methylpropane (Isobutane)	
4323	Acetylene	
3755	Carbon dioxide	
3780	Carbon monoxide	
4747	Ethane	
4752	Ethene	
1767	Helium	
1772	Hydrogen	
4926	Methane	
5007	n-Butane	
9511	Neopentane	
1843	Nitrogen	
5028	n-Pentane	
5029	n-Propane	
3895	Oxygen	
ASTM D1946-90	30024465	Reformed Gas by Gas Chromatography
Analyte Code	Analyte	
3755	Carbon dioxide	
3780	Carbon monoxide	
4747	Ethane	
4752	Ethene	
1767	Helium	
1772	Hydrogen	
4926	Methane	
1843	Nitrogen	
3895	Oxygen	
ASTM D5504 08	30032258	Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence
Analyte Code	Analyte	
4842	1-Propanethiol	
6113	2,5-Dimethylthiophene	
4544	2-Ethylthiophene	
4843	2-Propanethiol	
5783	3-Methylthiophene	
4450	Carbon disulfide	

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

180 Blue Ravine Road, Ste. B
Folsom CA 95630

Issue Date: 10/18/2015

Expiration Date: 10/17/2016

As of 10/18/2015 **this list supercedes all previous lists for this certificate number.**
Customers. Please verify the current accreditation standing with ORELAP.

Analyte Code	Analyte
7215	Carbonyl sulfide
6078	Diethyl Disulfide
6081	Diethyl Sulfide
4729	Dimethyl disulfide
6116	Dimethyl Sulfide
7506	Ethanethiol
3840	Hydrogen sulfide
3725	i-Butanethiol
7507	Methanethiol
9556	t-Butanethiol
9574	Tetrahydrothiophene
9578	Thiophene

EPA 325B 2013	10277437	Sorbent Tubes Coupled with Thermal Desorption and GC/MS
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Analyte Code	Analyte
4375	Benzene
4765	Ethylbenzene
5240	m+p-xylene
5250	o-Xylene
5100	Styrene
5140	Toluene

EPA TO-11A	10311805	Determination of Formaldehyde in Ambient Air Using Adsorbent Cartridge Followed by High Performance Liquid Chromatography (HPLC)
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Analyte Code	Analyte
4300	Acetaldehyde
4315	Acetone
5570	Benzaldehyde
4430	Butylaldehyde (Butanal)
4545	Crotonaldehyde
4815	Formaldehyde
3825	Hexanaldehyde (Hexanal)
6330	Isovaleraldehyde
5125	m-Tolualdehyde (1,3-Tolualdehyde)
6755	o-Tolualdehyde (1,2-Tolualdehyde)
3965	Propionaldehyde (Propanal)
6760	p-Tolualdehyde (1,4-Tolualdehyde)
4040	Valeraldehyde (Pentanal, Pentanaldehyde)

EPA TO-12	10248201	Non-Methane Organic Compounds by GC/FID
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Analyte Code	Analyte
3860	Non-methane organics

EPA TO-13A	10248405	Polycyclic Aromatic Hydrocarbons in Ambient Air by GC/MS
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Analyte Code	Analyte
5795	2-Chloronaphthalene
6385	2-Methylnaphthalene
5500	Acenaphthene
5505	Acenaphthylene
5555	Anthracene
5575	Benzo(a)anthracene
5580	Benzo(a)pyrene
5605	Benzo(e)pyrene
5590	Benzo(g,h,i)perylene
5600	Benzo(k)fluoranthene
5585	Benzo[b]fluoranthene
5855	Chrysene

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

180 Blue Ravine Road, Ste. B
Folsom CA 95630

Issue Date: 10/18/2015

Expiration Date: 10/17/2016

As of 10/18/2015 **this list supercedes all previous lists for this certificate number.**
Customers. Please verify the current accreditation standing with ORELAP.

Analyte Code	Analyte
5895	Dibenz(a,h) anthracene
6265	Fluoranthene
6270	Fluorene
6315	Indeno(1,2,3-cd) pyrene
5005	Naphthalene
6615	Phenanthrene
6665	Pyrene

EPA TO-13A SIM 10248449 Polycyclic Aromatic Hydrocarbons in Ambient Air by GC/MS SIM

Analyte Code	Analyte
5795	2-Chloronaphthalene
6385	2-Methylnaphthalene
5500	Acenaphthene
5505	Acenaphthylene
5555	Anthracene
5575	Benzo(a)anthracene
5580	Benzo(a)pyrene
5605	Benzo(e)pyrene
5590	Benzo(g,h,i)perylene
5600	Benzo(k)fluoranthene
5585	Benzo[b]fluoranthene
5855	Chrysene
5895	Dibenz(a,h) anthracene
6265	Fluoranthene
6270	Fluorene
6315	Indeno(1,2,3-cd) pyrene
6615	Phenanthrene
6665	Pyrene

EPA TO-14A 10248609 Volatile Organic Compounds with SUMMA canister and GC/MS

Analyte Code	Analyte
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
5155	1,2,4-Trichlorobenzene
5210	1,2,4-Trimethylbenzene
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
4655	1,2-Dichloropropane
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
4836	1-Propene
4860	2-Hexanone
4542	4-Ethyltoluene
4315	Acetone
4375	Benzene
5635	Benzyl chloride
4395	Bromodichloromethane
4455	Carbon tetrachloride
4475	Chlorobenzene
4575	Chlorodibromomethane
4485	Chloroethane (Ethyl chloride)
4505	Chloroform

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

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Folsom CA 95630

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Analyte Code	Analyte
4705	cis & trans-1,2-Dichloroethene
4680	cis-1,3-Dichloropropene
4555	Cyclohexane
4625	Dichlorodifluoromethane (Freon-12)
4750	Ethanol
4765	Ethylbenzene
4835	Hexachlorobutadiene
4895	Isopropyl alcohol (2-Propanol, Isopropanol)
4950	Methyl bromide (Bromomethane)
4960	Methyl chloride (Chloromethane)
4975	Methylene chloride (Dichloromethane)
5005	Naphthalene
4825	n-Heptane
4855	n-Hexane
5090	n-Propylbenzene
5100	Styrene
5115	Tetrachloroethylene (Perchloroethylene)
5120	Tetrahydrofuran (THF)
5140	Toluene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)
5235	Vinyl chloride
5260	Xylene (total)

EPA TO-15

10248803

VOCs collected in Canisters by GC/MS

Analyte Code	Analyte
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
5182	1,2,3-Trimethylbenzene
5155	1,2,4-Trichlorobenzene
5210	1,2,4-Trimethylbenzene
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
4655	1,2-Dichloropropane
5215	1,3,5-Trimethylbenzene
9318	1,3-Butadiene
4615	1,3-Dichlorobenzene
4676	1,3-Diethylbenzene
4620	1,4-Dichlorobenzene
4735	1,4-Dioxane (1,4- Diethyleneoxide)
4917	1-Butene
4833	1-Pentene
4836	1-Propene
5220	2,2,4-Trimethylpentane
4666	2,2-Dimethylbutane
4667	2,3,4-Trimethylpentane
4669	2,3-Dimethylbutane
4671	2,3-Dimethylpentane
4672	2,4-Dimethylpentane
4410	2-Butanone (Methyl ethyl ketone, MEK)
4538	2-Ethyltoluene
4860	2-Hexanone
4934	2-Methyl-2-Butene

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

180 Blue Ravine Road, Ste. B
Folsom CA 95630

Issue Date: 10/18/2015 **Expiration Date:** 10/17/2016

As of 10/18/2015 this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.

Analyte Code	Analyte
4937	2-Methylbutadiene (Isoprene)
4938	2-Methylbutane (Isopentane)
4939	2-Methylheptane
4946	2-Methylhexane
4941	2-Methylpentane (Isohexane)
4942	2-methylpropane (Isobutane)
4531	3-Ethyltoluene
4529	3-Methyl-1-Butene
4532	3-Methylheptane
4533	3-Methylhexane
4534	3-Methylpentane
4542	4-Ethyltoluene
4913	4-Methyl-1-Pentene
4995	4-Methyl-2-pentanone (MIBK)
4300	Acetaldehyde
4315	Acetone
4320	Acetonitrile
4323	Acetylene
4325	Acrolein (Propenal)
4340	Acrylonitrile
4355	Allyl chloride (3-Chloropropene)
4375	Benzene
5635	Benzyl chloride
4390	Bromochloromethane
4395	Bromodichloromethane
4400	Bromoform
4450	Carbon disulfide
4455	Carbon tetrachloride
4475	Chlorobenzene
4575	Chlorodibromomethane
4485	Chloroethane (Ethyl chloride)
4505	Chloroform
4525	Chloroprene (2-Chloro-1,3-butadiene)
4705	cis & trans-1,2-Dichloroethene
4680	cis-1,3-Dichloropropene
4602	cis-2-Butene
4603	cis-2-pentene
4555	Cyclohexane
4562	Cyclopentane
4563	Cyclopentene
4625	Dichlorodifluoromethane (Freon-12)
4627	Dichlorofluoromethane (Freon 21)
4747	Ethane
4750	Ethanol
4752	Ethene
4765	Ethylbenzene
4835	Hexachlorobutadiene
4895	Isopropyl alcohol (2-Propanol, Isopropanol)
4900	Isopropylbenzene
5240	m+p-xylene
4930	Methanol
4950	Methyl bromide (Bromomethane)
4960	Methyl chloride (Chloromethane)
5000	Methyl tert-butyl ether (MTBE)
4965	Methylcyclohexane
4966	Methylcyclopentane
4975	Methylene chloride (Dichloromethane)
5005	Naphthalene
5007	n-Butane
5875	n-Decane
4825	n-Heptane

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

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Analyte Code	Analyte
4855	n-Hexane
5026	n-Nonane
5027	n-Octane
5028	n-Pentane
5029	n-Propane
5090	n-Propylbenzene
6747	n-Undecane
5250	o-Xylene
5253	p-Diethylbenzene
5100	Styrene
5115	Tetrachloroethylene (Perchloroethylene)
5120	Tetrahydrofuran (THF)
5140	Toluene
4685	trans-1,3-Dichloropropylene
4607	trans-2-Butene
4606	trans-2-Hexene
4608	trans-2-pentene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)
5225	Vinyl acetate
5230	Vinyl bromide (Bromoethane)
5235	Vinyl chloride
5260	Xylene (total)

EPA TO-15 GC/MS SIM

10248858

VOCs collected in Canisters by GC/MS SIM

Analyte Code	Analyte
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)
4635	1,2-Dichloroethane (Ethylene dichloride)
4620	1,4-Dichlorobenzene
4375	Benzene
4455	Carbon tetrachloride
4485	Chloroethane (Ethyl chloride)
4505	Chloroform
4645	cis-1,2-Dichloroethylene
4625	Dichlorodifluoromethane (Freon-12)
4765	Ethylbenzene
5240	m+p-xylene
4960	Methyl chloride (Chloromethane)
5000	Methyl tert-butyl ether (MTBE)
5005	Naphthalene
5250	o-Xylene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene
5170	Trichloroethene (Trichloroethylene)
5235	Vinyl chloride

EPA TO-17

10312206

Determination of Volatile Organic Compounds in Ambient Air Using
Active Sampling Onto Sorbent Tubes

Analyte Code	Analyte
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
5165	1,1,2-Trichloroethane

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

180 Blue Ravine Road, Ste. B
Folsom CA 95630

Issue Date: 10/18/2015 Expiration Date: 10/17/2016

As of 10/18/2015 this list supercedes all previous lists for this certificate number.
Customers. Please verify the current accreditation standing with ORELAP.

Analyte Code	Analyte
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
5155	1,2,4-Trichlorobenzene
5210	1,2,4-Trimethylbenzene
4695	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
4655	1,2-Dichloropropane
5215	1,3,5-Trimethylbenzene
9318	1,3-Butadiene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
4735	1,4-Dioxane (1,4- Diethyleneoxide)
6380	1-Methylnaphthalene
5220	2,2,4-Trimethylpentane
4410	2-Butanone (Methyl ethyl ketone, MEK)
4860	2-Hexanone (MBK)
4938	2-Methylbutane (Isopentane)
6385	2-Methylnaphthalene
4542	4-Ethyltoluene
5500	Acenaphthene
5505	Acenaphthylene
5555	Anthracene
4375	Benzene
4450	Carbon disulfide
4455	Carbon tetrachloride
4475	Chlorobenzene
4485	Chloroethane (Ethyl chloride)
4505	Chloroform
4645	cis-1,2-Dichloroethylene
4555	Cyclohexane
4765	Ethylbenzene
6265	Fluoranthene
6270	Fluorene
4835	Hexachlorobutadiene
4895	Isopropyl alcohol (2-Propanol, Isopropanol)
4900	Isopropylbenzene
5240	m+p-xylene
5000	Methyl tert-butyl ether (MTBE)
4965	Methylcyclohexane
4975	Methylene chloride (Dichloromethane)
5005	Naphthalene
4825	n-Heptane
4855	n-Hexane
5090	n-Propylbenzene
5250	o-Xylene
6615	Phenanthrene
6665	Pyrene
5100	Styrene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)
5235	Vinyl chloride
5260	Xylene (total)

EPA TO-17 Modified 2

10312217

Hydrocarbons in Ambient Air Using WMS Passive Sampling Tubes

Analyte Code	Analyte
5160	1,1,1-Trichloroethane

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

180 Blue Ravine Road, Ste. B
Folsom CA 95630

Issue Date: 10/18/2015 Expiration Date: 10/17/2016

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Analyte Code	Analyte
5110	1,1,2,2-Tetrachloroethane
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
5150	1,2,3-Trichlorobenzene
5155	1,2,4-Trichlorobenzene
5210	1,2,4-Trimethylbenzene
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
9546	1,4-Dithiane
4410	2-Butanone (Methyl ethyl ketone, MEK)
4995	4-Methyl-2-pentanone (MIBK)
4315	Acetone
6698	alpha-Pinene
4375	Benzene
4455	Carbon tetrachloride
4475	Chlorobenzene
4505	Chloroform
4645	cis-1,2-Dichloroethylene
4555	Cyclohexane
6208	d-Limonene
4750	Ethanol
4755	Ethyl acetate
4765	Ethylbenzene
6774	Halothane (2-Bromo-2-chloro-1,1,1-trifluoroethane)
5240	m+p-xylene
4960	Methyl chloride (Chloromethane)
4990	Methyl methacrylate
5000	Methyl tert-butyl ether (MTBE)
5005	Naphthalene
4825	n-Heptane
4855	n-Hexane
5090	n-Propylbenzene
5250	o-Xylene
5100	Styrene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene
5170	Trichloroethene (Trichloroethylene)
5235	Vinyl chloride

EPA TO-3

10249000

Cryogenic Trapping

Analyte Code	Analyte
4375	Benzene
4765	Ethylbenzene
5140	Toluene
5260	Xylene (total)

Modified EPA TO-17 Passive RAD130 Tube 2 60032351

The Determination of Hydrocarbons in Air Via RAD130 RADIELLO
Passive Sample Tubes

Analyte Code	Analyte
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
5210	1,2,4-Trimethylbenzene

ORELAP Fields of Accreditation

ORELAP ID: CA300005

EPA CODE: CA00933

Certificate: CA300005 - 008

Eurofins Air Toxics, Inc

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Analyte Code	Analyte
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
4410	2-Butanone (Methyl ethyl ketone, MEK)
4995	4-Methyl-2-pentanone (MIBK)
4315	Acetone
4375	Benzene
4455	Carbon tetrachloride
4475	Chlorobenzene
4505	Chloroform
4645	cis-1,2-Dichloroethylene
4555	Cyclohexane
4750	Ethanol
4755	Ethyl acetate
4765	Ethylbenzene
4895	Isopropyl alcohol (2-Propanol, Isopropanol)
5240	m+p-xylene
4960	Methyl chloride (Chloromethane)
5000	Methyl tert-butyl ether (MTBE)
5005	Naphthalene
4825	n-Heptane
4855	n-Hexane
5090	n-Propylbenzene
5250	o-Xylene
5100	Styrene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene
5170	Trichloroethene (Trichloroethylene)
5235	Vinyl chloride

