3M Midway

3M Technical Ceramics
510 Midway Circle
Midway, TN 37809
423 422 6051

3/19/2024

Tennessee Dept. of Environment and Conservation
Johnson City Field Office
2305 Silverdale Dr.
Johnson City, TN 37601

Reference: 3M Technical Ceramics Annual Storm Water Monitoring Report
TNR053148

Hello,

This letter is to satisfy our annual storm water testing requirements for the year of 2023.

Enclosed are the storm water monitoring reports, chain of custody and the laboratory analytical results to show compliance.

If you have any questions or concerns, please contact myself at (423) 422-2000.

Respectfully,

Mark Strong

Mark Strong
EHS Engineer

"I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document and all attachments are true, accurate, and complete."

Mr. Michael Wilds, Plant Manager
3M Technical Ceramics

3/19/24
Date

Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT
for Stormwater Discharges Associated with Industrial Activity under the
TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

Facility Name: 3M Technical Ceramics	TMSP Number: TNR053148
Contact Person: Mark Strong	Phone Number:
This report is submitted for the following calendar year (e.g. 2015): 2023	Outfall Number: 04
List all TMSP sectors which apply to discharge from this outfall: E	Sample Date: 2/28/24
Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:	

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Parameter	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Aluminum, Total	0.75	ND
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	
Copper, Total	0.018	
Cyanide, Total	0.064	
Fluoride	1.8	
Iron, Total	5.0	0.166
Lead, Total	0.15	

Parameter (continued)	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
pH	5.0-9.0	
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	
Silver, Total	0.032	
Total Suspended Solids	150	7.18
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

I certify under penalty of law that this document and all of its attachments were prepared under my direction or my supervision in accordance with a system designed to assure qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Printed Name	Official Title	Signature	Date
Mike Wilds	Plant Manager	[signature]	3/19/24

Tennessee Multi-Sector General Permit (TMSP)
Annual Stormwater Monitoring Report – Instructions

1. The purpose of this form is to report stormwater (SW) monitoring results under the TMSP. **Only 1 sample per calendar year is required** (except Sectors J and H). **For each outfall, one Annual Stormwater Monitoring Report form must be submitted**. Grab samples should be collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. A separate form must be submitted for each outfall. If more than one pH sample is collected for any outfall, report all individual pH monitoring results for a given outfall on the corresponding form or in a separate, referenced attachment if necessary. If more than 1 sample for other parameters is collected at any outfall, submit the average results of all monitoring data (for calculating average, use the numerical method detection limit (MDL) if a parameter was not detected). If all monitoring results for a given parameter were non-detect, report the parameter as below detection limit (BDL) and provide the applicable numerical MDL value in parentheses (e.g., BDL (<0.001 mg/L)). New facilities must conduct sampling in the year during which permit coverage was obtained and during each following year. The form(s) shall be submitted 30 days after the sampling results are obtained, but no later than the March 31st of the following calendar year, whichever comes first.
2. If the results of annual SW runoff monitoring demonstrates that the facility has exceeded the cut-off concentration(s), the permittee must inform the division's local Environmental Field Office (EFO) in writing within 30 days from the time SW monitoring results were received, describing the likely cause of the exceedance(s). Furthermore, within 60 days from the time SW monitoring results were received, the facility must review its stormwater pollution prevention plan (SWPPP), make any modifications or additions to the plan which would assist in reducing runoff concentrations to less than the monitoring cut-off concentrations for that parameter, and submit to the local EFO a summary of the proposed SWPPP modifications (including a timetable for implementation).
3. Low Concentration Waiver – When the average concentration for a pollutant calculated from monitoring data collected from 4 consecutive calendar years of monitoring is less than the cut-off concentration, a facility may waive monitoring requirements in the following annual monitoring period. This form should be used for certification of low concentration waiver provision.

Complete, sign and date this form before it is submitted. Keep a copy of the completed form for your records. The division supports and encourages submission of electronic documents (e.g., scanned reports submitted as PDF files) by using the following dedicated email address: Water.Permits@tn.gov. You may also submit the original completed and signed form to the appropriate Environmental Field Office using the addresses below.

EFO	Street Address	City	Zip	Telephone
Chattanooga	1301 Riverfront Parkway, Suite #206	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 432-4015
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 RS Gass Boulevard	Nashville	37216	(615) 687-7000

Mining and quarrying facilities only (Sectors J and H) should submit one signed copy of Annual Stormwater Monitoring Report to the division's Mining Section at the following address:

Tennessee Division of Water Resources
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921

Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT
for Stormwater Discharges Associated with Industrial Activity under the
TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

Facility Name: 3M Technical Ceramics	TMSP Number: TNR053148
Contact Person: Mark Strong	Phone Number:
This report is submitted for the following calendar year (e.g. 2015): 2023	Outfall Number: 03
List all TMSP sectors which apply to discharge from this outfall: E	Sample Date: 2/28/24
Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:	

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Parameter	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Aluminum, Total	0.75	ND
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	
Copper, Total	0.018	
Cyanide, Total	0.064	
Fluoride	1.8	
Iron, Total	5.0	0.158
Lead, Total	0.15	

Parameter (continued)	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
pH	5.0-9.0	
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	
Silver, Total	0.032	
Total Suspended Solids	150	5.71
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

I certify under penalty of law that this document and all of its attachments were prepared under my direction or my supervision in accordance with a system designed to assure qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Printed Name	Official Title	Signature	Date
Mike Wilds	Plant Manager		3/19/24

Tennessee Multi-Sector General Permit (TMSP)
Annual Stormwater Monitoring Report – Instructions

1. The purpose of this form is to report stormwater (SW) monitoring results under the TMSP. **Only 1 sample per calendar year is required** (except Sectors J and H). **For each outfall, one Annual Stormwater Monitoring Report form must be submitted**. Grab samples should be collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. A separate form must be submitted for each outfall. If more than one pH sample is collected for any outfall, report all individual pH monitoring results for a given outfall on the corresponding form or in a separate, referenced attachment if necessary. If more than 1 sample for other parameters is collected at any outfall, submit the average results of all monitoring data (for calculating average, use the numerical method detection limit (MDL) if a parameter was not detected). If all monitoring results for a given parameter were non-detect, report the parameter as below detection limit (BDL) and provide the applicable numerical MDL value in parentheses (e.g., BDL (<0.001 mg/L)). New facilities must conduct sampling in the year during which permit coverage was obtained and during each following year. The form(s) shall be submitted 30 days after the sampling results are obtained, but no later than the March 31st of the following calendar year, whichever comes first.
2. If the results of annual SW runoff monitoring demonstrates that the facility has exceeded the cut-off concentration(s), the permittee must inform the division's local Environmental Field Office (EFO) in writing within 30 days from the time SW monitoring results were received, describing the likely cause of the exceedance(s). Furthermore, within 60 days from the time SW monitoring results were received, the facility must review its stormwater pollution prevention plan (SWPPP), make any modifications or additions to the plan which would assist in reducing runoff concentrations to less than the monitoring cut-off concentrations for that parameter, and submit to the local EFO a summary of the proposed SWPPP modifications (including a timetable for implementation).
3. Low Concentration Waiver – When the average concentration for a pollutant calculated from monitoring data collected from 4 consecutive calendar years of monitoring is less than the cut-off concentration, a facility may waive monitoring requirements in the following annual monitoring period. This form should be used for certification of low concentration waiver provision.

Complete, sign and date this form before it is submitted. Keep a copy of the completed form for your records. The division supports and encourages submission of electronic documents (e.g., scanned reports submitted as PDF files) by using the following dedicated email address: Water.Permits@tn.gov. You may also submit the original completed and signed form to the appropriate Environmental Field Office using the addresses below.

EFO	Street Address	City	Zip	Telephone
Chattanooga	1301 Riverfront Parkway, Suite #206	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 432-4015
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 RS Gass Boulevard	Nashville	37216	(615) 687-7000

Mining and quarrying facilities only (Sectors J and H) should submit one signed copy of Annual Stormwater Monitoring Report to the division's Mining Section at the following address:

Tennessee Division of Water Resources
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921

Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT
for Stormwater Discharges Associated with Industrial Activity under the
TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

Facility Name: 3M Technical Ceramics	TMSP Number: TNR053148
Contact Person: Mark Strong	Phone Number:
This report is submitted for the following calendar year (e.g. 2015): 2023	Outfall Number: 02
List all TMSP sectors which apply to discharge from this outfall: E	Sample Date: 2/28/24
Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:	

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Parameter	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Aluminum, Total	0.75	ND
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	
Copper, Total	0.018	
Cyanide, Total	0.064	
Fluoride	1.8	
Iron, Total	5.0	0.201
Lead, Total	0.15	

Parameter (continued)	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
pH	5.0-9.0	
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	
Silver, Total	0.032	
Total Suspended Solids	150	4.83
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

I certify under penalty of law that this document and all of its attachments were prepared under my direction or my supervision in accordance with a system designed to assure qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Mike Wilds	Plant Manager	[signature]	3/19/24
Printed Name	Official Title	Signature	Date

Tennessee Multi-Sector General Permit (TMSP)
Annual Stormwater Monitoring Report – Instructions

1. The purpose of this form is to report stormwater (SW) monitoring results under the TMSP. **Only 1 sample per calendar year is required** (except Sectors J and H). **For each outfall, one Annual Stormwater Monitoring Report form must be submitted**. Grab samples should be collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. A separate form must be submitted for each outfall. If more than one pH sample is collected for any outfall, report all individual pH monitoring results for a given outfall on the corresponding form or in a separate, referenced attachment if necessary. If more than 1 sample for other parameters is collected at any outfall, submit the average results of all monitoring data (for calculating average, use the numerical method detection limit (MDL) if a parameter was not detected). If all monitoring results for a given parameter were non-detect, report the parameter as below detection limit (BDL) and provide the applicable numerical MDL value in parentheses (e.g., BDL (<0.001 mg/L)). New facilities must conduct sampling in the year during which permit coverage was obtained and during each following year. The form(s) shall be submitted 30 days after the sampling results are obtained, but no later than the March 31st of the following calendar year, whichever comes first.
2. If the results of annual SW runoff monitoring demonstrates that the facility has exceeded the cut-off concentration(s), the permittee must inform the division's local Environmental Field Office (EFO) in writing within 30 days from the time SW monitoring results were received, describing the likely cause of the exceedance(s). Furthermore, within 60 days from the time SW monitoring results were received, the facility must review its stormwater pollution prevention plan (SWPPP), make any modifications or additions to the plan which would assist in reducing runoff concentrations to less than the monitoring cut-off concentrations for that parameter, and submit to the local EFO a summary of the proposed SWPPP modifications (including a timetable for implementation).
3. Low Concentration Waiver – When the average concentration for a pollutant calculated from monitoring data collected from 4 consecutive calendar years of monitoring is less than the cut-off concentration, a facility may waive monitoring requirements in the following annual monitoring period. This form should be used for certification of low concentration waiver provision.

Complete, sign and date this form before it is submitted. Keep a copy of the completed form for your records. The division supports and encourages submission of electronic documents (e.g., scanned reports submitted as PDF files) by using the following dedicated email address: Water.Permits@tn.gov. You may also submit the original completed and signed form to the appropriate Environmental Field Office using the addresses below.

EFO	Street Address	City	Zip	Telephone
Chattanooga	1301 Riverfront Parkway, Suite #206	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 432-4015
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 RS Gass Boulevard	Nashville	37216	(615) 687-7000

Mining and quarrying facilities only (Sectors J and H) should submit one signed copy of Annual Stormwater Monitoring Report to the division's Mining Section at the following address:

Tennessee Division of Water Resources
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921

Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

ANNUAL STORMWATER MONITORING REPORT
for Stormwater Discharges Associated with Industrial Activity under the
TENNESSEE MULTI-SECTOR GENERAL PERMIT (TMSP)

Facility Name: 3M Technical Ceramics	TMSP Number: TNR053148
Contact Person: Mark Strong	Phone Number:
This report is submitted for the following calendar year (e.g. 2015): 2023	Outfall Number: 01
List all TMSP sectors which apply to discharge from this outfall: E	Sample Date: 2/28/24
Low Concentration Waiver (Note 3): list all parameters for which the facility is certifying that there has not been a significant change in industrial activity or the pollution prevention measures in the area of the facility that drains to the outfall for which sampling was waived:	

DIRECTIONS: In the spaces below, provide the results of stormwater monitoring for the designated outfall. For each outfall, one Annual Stormwater Monitoring Report must be submitted. The parameters for which monitoring must be conducted depend on which industry sector(s) of the TMSP applies to the discharge. Look up your sector(s) in the TMSP and analyze for the parameters that apply. If parameter is not listed below, submit additional sheets. All samples should be grab.

Parameter	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Aluminum, Total	0.75	ND
Ammonia	4.0	
Arsenic, Total	0.16854	
BOD, 5-Day	30	
Cadmium, Total	0.0159	
COD	120	
Copper, Total	0.018	
Cyanide, Total	0.064	
Fluoride	1.8	
Iron, Total	5.0	0.195
Lead, Total	0.15	

Parameter (continued)	Cut-off Conc. (mg/L)	Annual Sample Result (mg/L)
Magnesium, Total	0.0636	
Mercury, Total	0.0024	
Nickel, Total	0.875	
Nitrate + Nitrite Nitrogen	0.68	
Oil and Grease	15	
pH	5.0-9.0	
Phosphorus, Total (as P)	2.0	
Selenium, Total	0.2385	
Silver, Total	0.032	
Total Suspended Solids	150	5.11
Zinc, Total	0.395	

CERTIFICATION AND SIGNATURE: (Make all entries in ink, not with a pencil. This report must be signed by a responsible corporate officer for a corporation, a general partner for a partnership, the proprietor for a sole proprietorship, or a principal executive officer or ranking elected official for a public agency.)

I certify under penalty of law that this document and all of its attachments were prepared under my direction or my supervision in accordance with a system designed to assure qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Mike Wilds	Plant Manager	[signature]	3/19/24
Printed Name	Official Title	Signature	Date

Tennessee Multi-Sector General Permit (TMSP)
Annual Stormwater Monitoring Report – Instructions

1. The purpose of this form is to report stormwater (SW) monitoring results under the TMSP. **Only 1 sample per calendar year is required** (except Sectors J and H). **For each outfall, one Annual Stormwater Monitoring Report form must be submitted**. Grab samples should be collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. A separate form must be submitted for each outfall. If more than one pH sample is collected for any outfall, report all individual pH monitoring results for a given outfall on the corresponding form or in a separate, referenced attachment if necessary. If more than 1 sample for other parameters is collected at any outfall, submit the average results of all monitoring data (for calculating average, use the numerical method detection limit (MDL) if a parameter was not detected). If all monitoring results for a given parameter were non-detect, report the parameter as below detection limit (BDL) and provide the applicable numerical MDL value in parentheses (e.g., BDL (<0.001 mg/L)). New facilities must conduct sampling in the year during which permit coverage was obtained and during each following year. The form(s) shall be submitted 30 days after the sampling results are obtained, but no later than the March 31st of the following calendar year, whichever comes first.
2. If the results of annual SW runoff monitoring demonstrates that the facility has exceeded the cut-off concentration(s), the permittee must inform the division's local Environmental Field Office (EFO) in writing within 30 days from the time SW monitoring results were received, describing the likely cause of the exceedance(s). Furthermore, within 60 days from the time SW monitoring results were received, the facility must review its stormwater pollution prevention plan (SWPPP), make any modifications or additions to the plan which would assist in reducing runoff concentrations to less than the monitoring cut-off concentrations for that parameter, and submit to the local EFO a summary of the proposed SWPPP modifications (including a timetable for implementation).
3. Low Concentration Waiver – When the average concentration for a pollutant calculated from monitoring data collected from 4 consecutive calendar years of monitoring is less than the cut-off concentration, a facility may waive monitoring requirements in the following annual monitoring period. This form should be used for certification of low concentration waiver provision.

Complete, sign and date this form before it is submitted. Keep a copy of the completed form for your records. The division supports and encourages submission of electronic documents (e.g., scanned reports submitted as PDF files) by using the following dedicated email address: Water.Permits@tn.gov. You may also submit the original completed and signed form to the appropriate Environmental Field Office using the addresses below.

EFO	Street Address	City	Zip	Telephone
Chattanooga	1301 Riverfront Parkway, Suite #206	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 432-4015
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 RS Gass Boulevard	Nashville	37216	(615) 687-7000

Mining and quarrying facilities only (Sectors J and H) should submit one signed copy of Annual Stormwater Monitoring Report to the division's Mining Section at the following address:

Tennessee Division of Water Resources
Mining Section
3711 Middlebrook Pike
Knoxville, TN 37921

ANALYTICAL REPORT

March 06, 2024

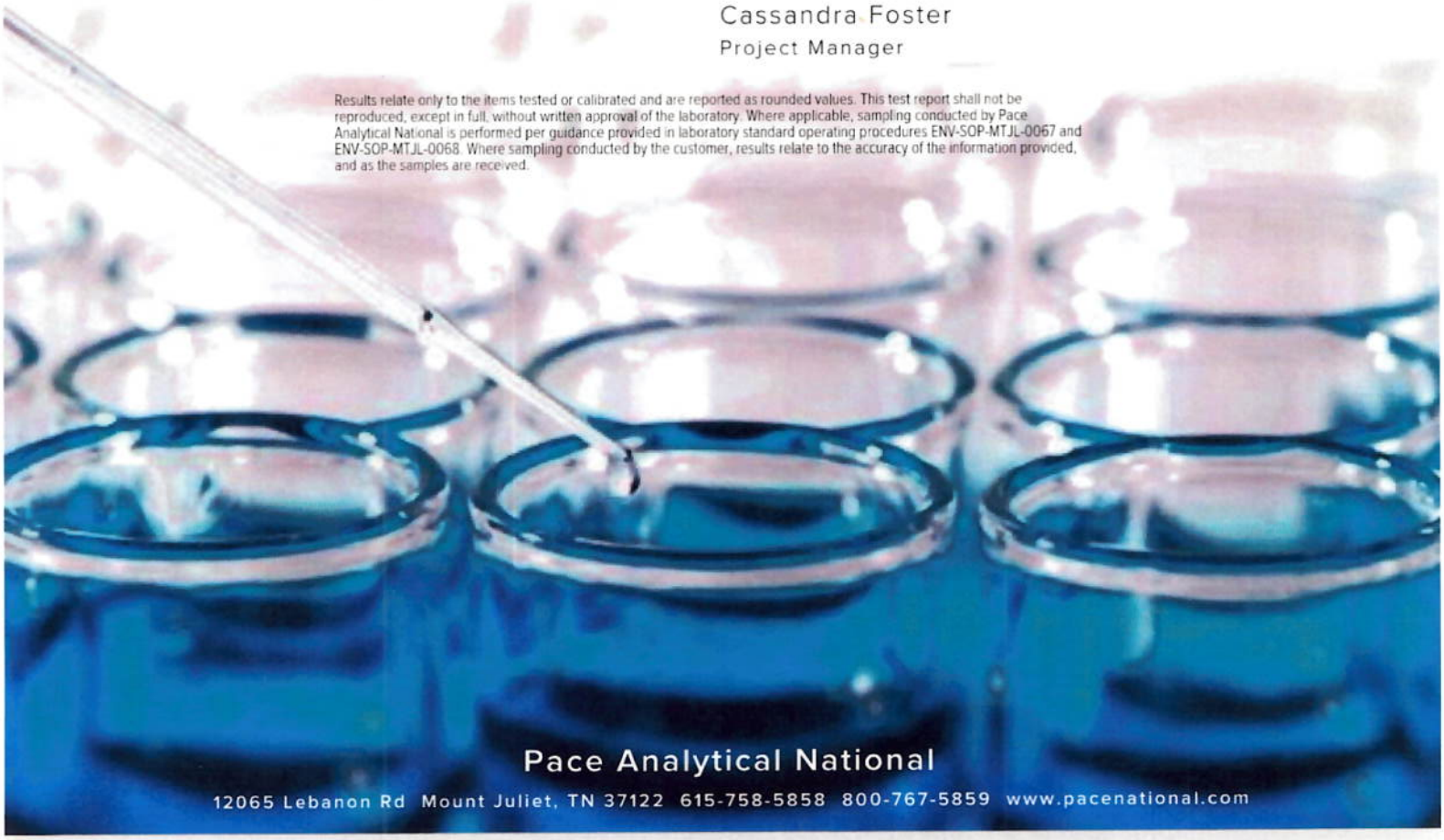
CERADYNE, INC. - A 3M Company

Sample Delivery Group:	L1710627
Samples Received:	03/01/2024
Project Number:	ANNUAL STORMWATER
Description:	Stormwater
Report To:	Mark Strong 510 Midway Circle Midway, TN 37809

Entire Report Reviewed By: Cassandra Foster

Cassandra Foster
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

SAMPLE SUMMARY

SW-01 L1710627-01 WW

Collected by: Mark Strong | Collected date/time: 02/28/24 13:30 | Received date/time: 03/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 D-2015	WG2239072	1	03/04/24 11:03	03/04/24 12:12	MMF	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2239165	1	03/05/24 07:45	03/05/24 16:38	ZSA	Mt. Juliet, TN

SW-02 L1710627-02 WW

Collected by: Mark Strong | Collected date/time: 02/28/24 13:30 | Received date/time: 03/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 D-2015	WG2239072	1	03/04/24 11:03	03/04/24 12:12	MMF	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2239165	1	03/05/24 07:45	03/05/24 16:39	ZSA	Mt. Juliet, TN

SW-03 L1710627-03 WW

Collected by: Mark Strong | Collected date/time: 02/28/24 13:30 | Received date/time: 03/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 D-2015	WG2239072	1	03/04/24 11:03	03/04/24 12:12	MMF	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2239165	1	03/05/24 07:45	03/05/24 16:41	ZSA	Mt. Juliet, TN

SW-04 L1710627-04 WW

Collected by: Mark Strong | Collected date/time: 02/28/24 13:30 | Received date/time: 03/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 D-2015	WG2239072	1	03/04/24 11:03	03/04/24 12:12	MMF	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2239165	1	03/05/24 07:45	03/05/24 16:43	ZSA	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Cassandra Foster

Cassandra Foster
Project Manager

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Suspended Solids	5.11		2.78	1	03/04/2024 12:12	WG2239072

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Aluminum	ND		0.200	1	03/05/2024 16:38	WG2239165
Iron	0.195		0.100	1	03/05/2024 16:38	WG2239165

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Suspended Solids	4.83		2.88	1	03/04/2024 12:12	WG2239072

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Aluminum	ND		0.200	1	03/05/2024 16:39	WG2239165
Iron	0.201		0.100	1	03/05/2024 16:39	WG2239165

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Suspended Solids	5.71		2.75	1	03/04/2024 12:12	WG2239072

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Aluminum	ND		0.200	1	03/05/2024 16:41	WG2239165
Iron	0.158		0.100	1	03/05/2024 16:41	WG2239165

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Suspended Solids	7.18		2.95	1	03/04/2024 12:12	WG2239072

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Aluminum	ND		0.200	1	03/05/2024 16:43	WG2239165
Iron	0.166		0.100	1	03/05/2024 16:43	WG2239165

QUALITY CONTROL SUMMARY

L1710627-01,02,03,04

Method Blank (MB)

(MB) R4041601-1 03/04/24 12:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Suspended Solids	U		2.50	2.50

L1710585-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1710585-01 03/04/24 12:12 • (DUP) R4041601-3 03/04/24 12:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Suspended Solids	99.0	104	1	4.93		10

L1710587-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1710587-01 03/04/24 12:12 • (DUP) R4041601-4 03/04/24 12:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Suspended Solids	96.0	97.0	1	1.04		10

Laboratory Control Sample (LCS)

(LCS) R4041601-2 03/04/24 12:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Suspended Solids	773	764	98.8	85.0-115	

Method Blank (MB)

(MB) R4041858-1 03/05/24 16:11

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Aluminum	U		0.0592	0.200
Iron	U		0.0205	0.100

Laboratory Control Sample (LCS)

(LCS) R4041858-2 03/05/24 16:13

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Aluminum	10.0	10.1	101	85.0-115	
Iron	10.0	10.1	101	85.0-115	

L1711077-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1711077-01 03/05/24 16:14 • (MS) R4041858-4 03/05/24 16:18 • (MSD) R4041858-5 03/05/24 16:19

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Aluminum	10.0	ND	10.4	9.83	104	98.3	1	70.0-130			5.56	20
Iron	10.0	ND	10.4	9.86	104	98.6	1	70.0-130			5.47	20

L1710666-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1710666-01 03/05/24 16:21 • (MS) R4041858-6 03/05/24 16:23 • (MSD) R4041858-7 03/05/24 16:24

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Aluminum	10.0	1.80	12.0	12.4	102	106	1	70.0-130			3.72	20
Iron	10.0	0.739	11.0	11.4	103	106	1	70.0-130			3.33	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1,6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1,4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Company Name/Address:
CERADYNE, INC. - A 3M Company
510 Midway Circle
Midway, TN 37809

Billing Information:
Accounts Payable
510 Midway Circle
Midway, TN 37809

Report to: Mark Strong

Email To: dmstrong@mmm.com

Project Description: Stormwater

City/State Collected:

Please Circle: PT MT CT ET

Phone: 423-422-2000

Client Project # ANNUAL STORMWATER

Lab Project #

Collected by (print): Mark Strong

Site/Facility ID #

P.O. #

Collected by (signature): Mark Strong

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Pres Chk ✓2	Metals (Al, Fe) 250mlHDPE-HNO3	TSS 1L-HDPE NoPres									Remarks	Sample # (lab only)
SW-01	grab	WW		2/28/24	1:30 PM	2	X	X											-01
SW-02	grab	WW		2/28/24	13:30	2	X	X											-02
SW-03	grab	WW		2/28/24	13:30	2	X	X											-03
SW-04	grab	WW		2/28/24	13:30	2	X	X											-04

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace ANALYTICAL SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: http://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1701027
TI C049

Acctnum: MINCOMTN
Template: T157997
Prelogin: P1036671
PM: 923 - Reagan Johnson
PB: CF 11/10/23

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx Courier

Tracking # SWA

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N
RAD Screen <0.5 mR/hr: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Mark Strong	2/29/24	09:15	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	3/29/24	1700	Crosstown
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: HEAT °C Bottles Received: 8
0.2+0

If preservation required by Login: Date/Time
PH-10BDH8021 TRC-2352362
CR8-20221V

Hold: Condition: NCF / OK

Date: 3/1/24 Time: 0800