



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4**

**Laboratory Services & Applied Science Division
Water Quality Section
980 College Station Road
Athens, Georgia 30605-2720**

October 27, 2021

MEMORANDUM

SUBJECT: Akebono Brake Corporation Final Report
Elizabethtown, KY
LSASD Project ID: 21-0330

FROM: Chris McHugh, Environmental Engineer *Christopher McHugh*
Water Quality Section

THRU: Greg White, Chief
Water Quality Section

TO: Jairo Castillo-Valenzuela, P.E., Chief
Wastewater Enforcement Section
Enforcement & Compliance Assistance Division

Attached is the Final Report for the Akebono Brake Corporation NPDES Reconnaissance Sampling Inspection.

If you have any questions concerning the sampling event, please call me at (706) 410-4082 or email me at mchugh.christopher@epa.gov.

Attachments:

cc (via email) : Dennis Sayre, ECAD
: Sandra Aker, LSASD

Mission: To provide sound Science to our customers through superior environmental evaluation

Vision: To be a solutions-oriented organization, and seen as a leader in sound science through innovation, responsive customer service, and cutting-edge expertise

Project ID: 21-0330

NPDES Sampling Evaluation Report

Akebono Brake Corporation

300 Ring Road

Elizabethtown, Kentucky

Project Date: August 31, 2021

Report Date: October 27, 2021



Project Leader: Chris McHugh

Water Quality Section

Field Services Branch

Laboratory Services & Applied Science
Division

USEPA – Region 4

980 College Station Road

Athens, Georgia 30605-2720

The ANSI National Accreditation Board attests that U.S. EPA Region 4 Laboratory Services and Applied Science Division fulfills the requirements of ISO/IEC 17025:2017 ANAB Forensic Testing & Calibration AR 3125:2019 in the field of Forensic Testing. The activities contained in this report fall within the scope of accreditation, Certificate Number: FT-0330. Expires 31 July 2022.

LSASD
LABORATORY SERVICES & APPLIED SCIENCE DIVISION

Requestor:

Jairo Castillo Chief
Water Enforcement Branch
Enforcement and Compliance Assurance
Division
USEPA – Region 4
61 Forsyth Street SW
Atlanta, GA, 30303-8960

Analytical Support:

Inorganic Chemistry Section
Laboratory Services and Applied Science
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980 College Station Rd Athens, GA 30605

Approvals:

LSASD Project Leader:

Chris McHugh
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Greg White, Chief
Water Quality Section
Field Services Branch

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**NPDES Sampling Evaluation
Akebono (Permit No. KY0089672)**

1. Introduction

On August 31, 2021, a representative of the U.S. Environmental Protection Agency (USEPA) Region 4 Laboratory Services and Applied Science Division (LSASD) conducted a National Pollutant Discharge Elimination System (NPDES) Reconnaissance Sampling Evaluation at Akebono in Elizabethtown, Kentucky. The evaluation was requested by the ECAD Water Enforcement Branch as part of the agency's goal to address significant non-compliance (SNC) facilities. Grab samples were collected at the effluent discharge location consistent with the facility's NPDES permit and at the North property line where adjacent property stormwater runoff enters onto Akebono's property. Samples were analyzed for total suspended solids (TSS) listed on the issued NPDES Permit KY0089672. The inspection followed the procedures listed in the LSASD Project No. 21-0330 Sample and Analysis Plan (SAP). Table 1 lists the sampling participants.

Table 1 – Inspection Personnel

Inspector	Organization	Date(s) on site
Chris McHugh	USEPA Region 4 LSASD	8/31/21
Dave Pedigo	Akebono Environmental Engineer/ Facility Manager	8/31/21

2. Summary

The analytical results from the effluent discharge (EFF001) were within the NPDES permitted limits for TSS. During the inspection, the alleged cause (heavy rain) for the persistent TSS violations was observed (remnants of Hurricane Ida) and can be seen in the pictures below. During heavy rain events, a rock-lined channel coming from the northside adjacent property discharges cloudy stormwater runoff. The runoff enters the Akebono collection system before discharging at EFF001. Based on the inspection interview with Dave Pedigo, the facility has been in contact with the Kentucky Department of Environmental Protection (KDEP), and there is ongoing discussion about the issue regarding periodic TSS exceedance levels. Akebono claims that the incoming stormwater runoff is the cause for its inability to meet the required NPDES permit limit for TSS. Samples were collected at the incoming stormwater discharge channel and had higher levels of TSS (7.9 mg/L) than from the discharge at EFF001 (5.0 mg/L). Note, the incoming stormwater runoff isn't a substantial order of magnitude higher than the discharge at

EFF001. It is recommended that ECAD follow-up with the KDEP to gather more information on potential actions to assist Akebono with regaining compliance or potential enforcement actions.

3. Sample Analysis Results

The grab samples were analyzed for the parameters listed below. The sample at EFF001 for TSS (5.0 mg/L) was within the permitted limit. Additionally, the sample collected at the North rock-lined channel from the adjacent property stormwater runoff was 7.9 mg/L for TSS.

Table 2 – EPA Sample Results vs. Permitted Limits

Analyte	EPA Analytical Results	Permitted Limit	Sample Location
TSS	5.0 mg/L *U	60 mg/L daily maximum	Effluent (EFF001)
TSS	7.9 mg/L	N/A	North property line rock-lined channel

DATA QUALIFIER DEFINITIONS

- U The analyte was not detected at or above the reporting limit.

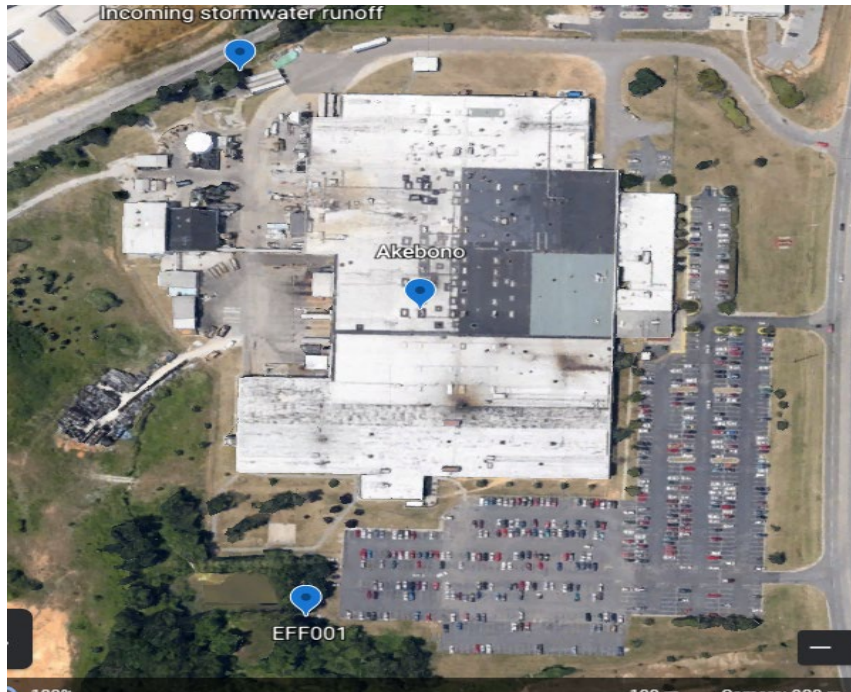


Figure 1 – Sample Collection Points

Photo Log



Taken facing the adjacent property line during the inspection 8/31/21. Cloudy white stormwater runoff enters the Akebono collection system via this rock-lined channel.



Facing the Akebono facility, with back to adjacent property. The cloudy stormwater enters into the Akebono collection system. Taken on 8/31/21.

Appendix A

The following table lists the total number of pages for each of the Analytical Datasheets for this report. Each document is contained in the PDF portfolio.

R4LIMS ID	Lab ID	Analysis	Total Pages
21-0330	E213609	TSS	8

End of Report



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Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 21-0330

Project: 21-0330, Akebono - Reported by Laura Ackerman

September 15, 2021

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 21-0330, Akebono

FROM: Laura Ackerman
LSB Inorganic Chemistry Section Chief

THRU: John Deatrck, Chief
Laboratory Services Branch

TO: Christopher McHugh

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

Classical/Nutrient Analyses (CNA)

Solids

USGS I-3765-85 (Water)

ISO



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Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.



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Project: 21-0330, Akebono - Reported by Laura Ackerman

SAMPLES INCLUDED IN THIS REPORT

Project: 21-0330, Akebono

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
21--0330-0001	E213609-01	Wastewater	8/31/21 09:20	9/3/21 8:00
21-0330-0002	E213609-02	Wastewater	8/31/21 10:15	9/3/21 8:00



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DATA QUALIFIER DEFINITIONS

U The analyte was not detected at or above the reporting limit.

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO Accredited to ISO/IEC 17025:2017 and accreditation requirements for Forensic Science Testing Laboratories.

Refer to the certificate and scope of accreditation FT-0330 at:
<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

NR Not accredited for this test.

DW Accredited for conformance with ISO/IEC 17025:2017 and testing elements in the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water, EPA 815-R-05-004, 2005.

Refer to the certificate and scope of accreditation AT-2628 at:
<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

ISO/DW Accredited to ISO/IEC 17025:2017 and accreditation requirements for Forensic Science Testing Labs, and conformance with ISO/IEC 17025:2017 and testing elements in the Manual for the Certification of Laboratories Analyzing Drinking Water.



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D.A.R.T. Id: 21-0330

Project: 21-0330, Akebono - Reported by Laura Ackerman

Classical/Nutrient Analyses

Project: 21-0330, Akebono

Sample ID: 21--0330-0001

Lab ID: E213609-01

Station ID: EFF001

Matrix: Wastewater

Date Collected: 8/31/21 9:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642818	Total Suspended Solids	5.0	U	mg/L	5.0	9/03/21 9:32	9/07/21 10:40	USGS I-3765-85



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D.A.R.T. Id: 21-0330

Project: 21-0330, Akebono - Reported by Laura Ackerman

Classical/Nutrient Analyses

Project: 21-0330, Akebono

Sample ID: 21-0330-0002

Lab ID: E213609-02

Station ID: INF001

Matrix: Wastewater

Date Collected: 8/31/21 10:15

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642818	Total Suspended Solids	7.9		mg/L	5.0	9/03/21 9:32	9/07/21 10:40	USGS I-3765-85



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Project: 21-0330, Akebono - Reported by Laura Ackerman

Classical/Nutrient Analyses (CNA) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 2109016 - C 2540 Solids									
Blank (2109016-BLK1)					Prepared: 09/03/21 Analyzed: 09/07/21				
USGS I-3765-85									
Total Suspended Solids	U	5.0	mg/L						U
LCS (2109016-BS1)					Prepared: 09/03/21 Analyzed: 09/07/21				
USGS I-3765-85									
Total Suspended Solids	93.800	5.0	mg/L	100.00		93.8	77.1-110		
LCS (2109016-BS2)					Prepared: 09/03/21 Analyzed: 09/07/21				
USGS I-3765-85									
Total Suspended Solids	92.500	5.0	mg/L	100.00		92.5	77.1-110		
LCS (2109016-BS3)					Prepared: 09/03/21 Analyzed: 09/07/21				
USGS I-3765-85									
Total Suspended Solids	90.200	5.0	mg/L	100.00		90.2	77.1-110		
LCS (2109016-BS4)					Prepared: 09/03/21 Analyzed: 09/07/21				
USGS I-3765-85									
Total Suspended Solids	103.90	5.0	mg/L	100.00		104	77.1-110		
LCS Dup (2109016-BSD1)					Prepared: 09/03/21 Analyzed: 09/07/21				
USGS I-3765-85									
Total Suspended Solids	95.300	5.0	mg/L	100.00		95.3	77.1-110	1.59	10
Duplicate (2109016-DUP1)					Prepared: 09/03/21 Analyzed: 09/07/21				
Source: E213608-01									
USGS I-3765-85									
Total Suspended Solids	8.7000	5.0	mg/L		8.5000		2.33	10	
MRL Verification (2109016-PS1)					Prepared: 09/03/21 Analyzed: 09/07/21				
USGS I-3765-85									
Total Suspended Solids	3.0000	5.0	mg/L	5.0000		60.0	57.1-130		MRL-2, U



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Notes and Definitions for QC Samples

U The analyte was not detected at or above the reporting limit.

MRL-2 MRL verification for Non-Potable Water matrix