



Mettiki Coal, LLC
W. Hunter Burow
Manager of Environmental Affairs

February 27, 2023

Mr. Ed Dexter
Solid Waste Program
Maryland Department of the Environment
Waste Management Administration
1800 Washington Blvd., STE 605
Baltimore, MD 21230-1719

Dear Mr. Dexter:

Enclosed please find one (1) copy of our 2022 Annual Generator Tonnage Report to meet the requirements of COMAR 26.04.10.08. The report covers the period from January 1, 2022 through December 31, 2022.

If you need additional information or clarification, please call.

Sincerely,

W. Hunter Burow

**Coal Combustion Byproducts (CCBs)
Annual Generator Tonnage Report
Instructions for Calendar Year 2022**

The following is general information relating to the requirement for reporting quantities of coal combustion byproducts (CCBs) that were managed in the State of Maryland during calendar year 2022. Please answer the questions on the form provided, attaching additional information and any requested supplemental information to the back of the form. *Note that the form requires both volume and weight of the CCBs produced. If you know one of these parameters but not the others, for example, you have the tonnage produced but not the volume, you may calculate the other parameter; however, please provide the calculations and assumptions that you used in your estimate.* Questions can be directed to the Solid Waste Program at (410) 537-3315 or via email at ed.dexter@maryland.gov.

I. Background. This requirement that generators of CCBs submit an annual report was instituted in the Code of Maryland Regulations COMAR 26.04.10.08, that was promulgated effective December 1, 2008. The regulation requires that any non-residential generator of CCBs submit a report to MDE by March 1 of each year describing the manner in which CCBs generated within the State were managed during the preceding calendar year. Additional information and specific instructions follow. For more detailed information, please refer to COMAR 26.04.10.08.

II. General Information and Applicability.

A. Definitions. CCBs are defined in COMAR 26.04.10.02B as:

*“(3) Coal Combustion Byproducts. (a) "Coal combustion byproducts" means the residue generated by or resulting from the burning of coal.
(b) "Coal combustion byproducts" includes fly ash, bottom ash, boiler slag, pozzolan, and other solid residuals removed by air pollution control devices from the flue gas and combustion chambers of coal burning furnaces and boilers, including flue gas desulfurization sludge and other solid residuals recovered from flue gas by wet or dry methods.”*

A generator of CCBs is defined in COMAR 26.04.10.02B as:

*“(9) Generator.
(a) "Generator" means a person whose operations, activities, processes, or actions create coal combustion byproducts.
(b) "Generator" does not include a person who only generates coal combustion byproducts by burning coal at a private residence.”*

B. Applicability. If you or your company meets the definition of a generator of CCBs as defined above, you must provide the information as required below. For the purposes of this report, “you” shall hereinafter refer to the generator defined above. Please note that COMAR 26.04.10.08 requires generators of CCBs to submit an annual report to the Department concerning the disposition of the CCBs that they generated the previous year. **THIS INCLUDES CCBs THAT WERE NOT SEPARATELY COLLECTED BUT WERE PRODUCED BY THE BURNING OF COAL AND WERE DIRECTLY CONTRIBUTED TO A PRODUCT, such as cement.** Where the amount cannot be directly measured, estimates based on the amount of coal burned can be used. The method of determining the volume of CCBs produced must be described.

III. Required Information. The following information must be provided to MDE by March 1, 2023:

A. Contact information:

Facility Name: Mettiki Coal, LLC

Name of Permit Holder: Mettiki Coal, LLC

Facility Address: 293 Table Rock Road
Street

Facility Address: Oakland Maryland 21550
City State Zip

County: Garrett

Contact Information (Person filing report or Environmental Manager)

Facility Telephone No.: 301-334-5396 Facility Fax No.: 301-334-1602

Contact Name: Hunter Burow

Contact Title: Manager of Environmental Affairs

Contact Address: 293 Table Rock Road
Street

Contact Address: Oakland MD 21550
City State Zip

Contact Email: hunter.burow@arlp.com

Contact Telephone No.: 301-334-5396 Contact Fax No.: 301-334-1602

For questions on how to complete this form, please contact the Solid Waste Program at 410-537-3315

B. A description of the process that generates the CCBs, including the type of coal or other raw material that generates the CCBs. If the space provided is insufficient, please attach additional pages:

The process that generates the subject CCBs is the operation of a coal thermal dryer burning bituminous coal. Raw coal is first sent to the preparation plant where it is washed in a water bath to reduce sulfur and ash content. In the final stage of preparation, hot air from the pulverized coal burners is passed through a fluidized bed of the wet washed coal in the thermal dryer. This is to reduce the moisture content of the processed coal from approximately 15% to approximately 5% to meet contract specification for shipment to the customer.

C. The volume and weight of CCBs generated during calendar year 2022, including an identification of the different types of CCBs generated and the volume of each type generated. If the space provided is insufficient, please attach additional pages in a similar format. If converting from volume to weight or weight to volume, please provide your calculations and assumptions.

Table I: Volume and Weight of CCBs Generated for Calendar Year 2022: Please note that this table includes both the volume and weight of the types of CCBs your facility produces.

Volume and Weight of CCBs Generated for Calendar Year 2021			
Thermal Dryer Ash			
Type of CCB	Type of CCB	Type of CCB	Type of CCB
912.72			
Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards	Volume of CCB, in Cubic Yards
1540			
Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons	Weight of CCB, in Tons

Additional notes:

1540 tons x 2000 lb/ton/ (125 lb/cu ft x 27 cu ft/ cu yd)
=1115.31 cu yd

D. Descriptions of any modeling or risk assessments, or both, conducted relating to the CCBs or their use that were performed by you or your company during the reporting year. Please attach this information to the report.

E. Copies of all laboratory reports of all chemical characterizations of the CCBs. Please attach this information to the report.

F. A description of how you disposed of or used your CCBs in calendar year 2022, identifying:

(a) The types and volume of CCBs disposed of or used (if different than described in Paragraph C above) including any CCBs stored during the previous calendar year, the location of disposal, mine reclamation and use sites, and the type and volume of CCBs disposed of or used at each site:

Volumes presented in Table I are disposed of in MDE Permit #DM 84-101 refuse disposal site on Mettiki owned property near the mine in Garrett County Maryland. All of the material is disposed of at this site and is used for the inherent alkalinity it contains.

and (b) The different uses by type and volume of CCBs:

100% of dryer ash is used for disposal/Reclamation

If the space provided is insufficient, please attach additional pages in a similar format.

G. A description of how you intend to dispose of or use CCBs in the next 5 years, identifying:

(a) The types and volume of CCBs intended to be disposed of or used, the location of intended disposal, mine reclamation and use sites, and the type and volume of CCBs intended to be disposed of or used at each site:

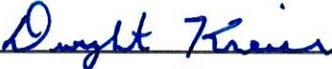
No anticipated changes in the next 5 years.

and (b) The different intended uses by type and volume of CCBs.

100% of dryer ash will continue to be used for the existing use

If the space provided is insufficient, please attach additional pages in a similar format.

IV. Signature and Certification. An authorized official of the generator must sign the annual report, and certify as to the accuracy and completeness of the information contained in the annual report:

This is to certify that, to the best of my knowledge, the information contained in this report and any attached documents are true, accurate, and complete.		
Signature	 _____ Dwight Kreiser, VP of Operations, 301-334-5382 _____ Name, Title, & Telephone No. (Print or Type) _____ dwight.kreiser@arlp.com _____ Your Email Address	_____ 2/27/2023 _____ Date

V: Attachments (please list):

Attachment E: Thermal Dryer Ash Qualities


 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Hunter Burow
Mettiki Coal Corporation
293 Table Rock Road
Oakland, Maryland 21550

Generated 1/20/2023 1:29:59 PM

JOB DESCRIPTION

Quarterly CCB Reporting

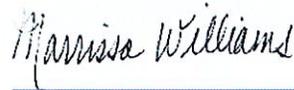
JOB NUMBER

410-110432-1

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
1/20/2023 1:29:59 PM

Authorized for release by
Marrison Williams, Project Manager
Marrison.Williams@et.euofinsus.com
(717)556-7246

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Marissa Williams

Table of Contents

Cover Page	1
Table of Contents	4
Definitions/Glossary	5
Case Narrative	6
Detection Summary	7
Client Sample Results	8
QC Sample Results	10
QC Association Summary	15
Lab Chronicle	18
Certification Summary	19
Method Summary	20
Sample Summary	21
Chain of Custody	22
Receipt Checklists	23

Definitions/Glossary

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Mettiki Coal Corporation
Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Job ID: 410-110432-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Narrative

Job Narrative 410-110432-1

Receipt

The sample was received on 12/28/2022 10:24 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 14.3°C

Receipt Exceptions

The following sample was received at the laboratory outside the required temperature criteria: Mettiki Dryer Ash Grab Solid Sample (410-110432-1). There was no cooling media present in the cooler. The client was contacted regarding this issue, and the laboratory was instructed to proceed with analysis

HPLC/IC

Method 300_ORGFM_28D: The laboratory control sample (LCS) for preparation batch 410-334909 and analytical batch 410-335696 recovered outside upper control limits for sulfate at 113%. The acceptable recovery window of 90-110% is associated with water samples, and the impacted samples were soil matrices; therefore, the data have been reported.

Method 300_ORGFM_28D: The method blank (MB) for analytical batch 410-335696 contained sulfate above the MDL. All reported samples associated with blank were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the MB; therefore, re-analysis of sample(s) was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample

Lab Sample ID: 410-110432-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Sulfate	2000	B *+ cn	760	250	mg/Kg	50		*	EPA 300.0 R2.1	Soluble
Sulfate	10	B	7.5	2.5	mg/L	5			EPA 300.0 R2.1	ASTM Leach
Aluminum	1900		20	7.9	mg/Kg	1		*	6010C	Total/NA
Barium	12		0.50	0.15	mg/Kg	1		*	6010C	Total/NA
Chromium	2.3		1.5	0.35	mg/Kg	1		*	6010C	Total/NA
Copper	1.2	J	2.0	0.76	mg/Kg	1		*	6010C	Total/NA
Iron	1600		20	6.1	mg/Kg	1		*	6010C	Total/NA
Lead	0.77	J	1.5	0.59	mg/Kg	1		*	6010C	Total/NA
Lithium	3.1	J	5.0	1.4	mg/Kg	1		*	6010C	Total/NA
Manganese	2.7		0.99	0.40	mg/Kg	1		*	6010C	Total/NA
Zinc	4.8		2.0	0.79	mg/Kg	1		*	6010C	Total/NA
Aluminum	1.2	J	3.5	1.0	mg/L	1			6010C	TCLP
Barium	0.10		0.050	0.010	mg/L	1			6010C	TCLP
Chromium	0.15		0.15	0.030	mg/L	1			6010C	TCLP
Iron	2.2		2.0	0.80	mg/L	1			6010C	TCLP
Manganese	0.20		0.10	0.030	mg/L	1			6010C	TCLP
Zinc	0.11	J	0.20	0.037	mg/L	1			6010C	TCLP

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample

Lab Sample ID: 410-110432-1

Date Collected: 12/21/22 11:30

Matrix: Solid

Date Received: 12/28/22 10:24

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	10	B	7.5	2.5	mg/L			01/12/23 19:48	5

Method: SW846 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.2	J	3.5	1.0	mg/L		01/10/23 14:02	01/13/23 16:43	1
Arsenic	ND		0.50	0.16	mg/L		01/10/23 14:02	01/13/23 16:43	1
Barium	0.10		0.050	0.010	mg/L		01/10/23 14:02	01/13/23 16:43	1
Boron	ND	^3+ ^+	0.30	0.12	mg/L		01/10/23 14:02	01/13/23 16:43	1
Cadmium	ND		0.050	0.010	mg/L		01/10/23 14:02	01/13/23 16:43	1
Chromium	0.15		0.15	0.030	mg/L		01/10/23 14:02	01/13/23 16:43	1
Copper	ND		0.20	0.080	mg/L		01/10/23 14:02	01/13/23 16:43	1
Iron	2.2		2.0	0.80	mg/L		01/10/23 14:02	01/13/23 16:43	1
Lead	ND		0.15	0.071	mg/L		01/10/23 14:02	01/13/23 16:43	1
Lithium	ND		0.50	0.11	mg/L		01/10/23 14:02	01/13/23 16:43	1
Manganese	0.20		0.10	0.030	mg/L		01/10/23 14:02	01/13/23 16:43	1
Molybdenum	ND		0.10	0.020	mg/L		01/10/23 14:02	01/16/23 15:19	1
Selenium	ND	^+	0.50	0.16	mg/L		01/10/23 14:02	01/13/23 16:43	1
Silver	ND		0.10	0.050	mg/L		01/10/23 14:02	01/13/23 16:43	1
Zinc	0.11	J	0.20	0.037	mg/L		01/10/23 14:02	01/13/23 16:43	1

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		01/09/23 05:52	01/09/23 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	0.0		1.0	1.0	%			01/03/23 13:46	1
Percent Solids (EPA Moisture)	100.0		1.0	1.0	%			01/03/23 13:46	1

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample

Lab Sample ID: 410-110432-1

Date Collected: 12/21/22 11:30

Matrix: Solid

Date Received: 12/28/22 10:24

Percent Solids: 100.0

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2000	B *+ cn	760	250	mg/Kg	⊛		01/13/23 13:59	50

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1900		20	7.9	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Arsenic	ND		3.0	1.4	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Barium	12		0.50	0.15	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Boron	ND		20	6.0	mg/Kg	⊛	01/05/23 04:13	01/11/23 17:15	1
Cadmium	ND		0.50	0.099	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Chromium	2.3		1.5	0.35	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Copper	1.2	J	2.0	0.76	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Iron	1600		20	6.1	mg/Kg	⊛	01/05/23 04:13	01/11/23 17:15	1
Lead	0.77	J	1.5	0.59	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Lithium	3.1	J	5.0	1.4	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Manganese	2.7		0.99	0.40	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Molybdenum	ND		0.99	0.26	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1

Client Sample Results

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample

Lab Sample ID: 410-110432-1

Date Collected: 12/21/22 11:30

Matrix: Solid

Date Received: 12/28/22 10:24

Percent Solids: 100.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		5.0	1.5	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Silver	ND		0.99	0.40	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1
Zinc	4.8		2.0	0.79	mg/Kg	⊛	01/05/23 04:13	01/06/23 07:59	1

Method: SW846 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.056	0.019	mg/Kg	⊛	01/05/23 04:36	01/06/23 15:21	1

QC Sample Results

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-335055/5	Client Sample ID: Method Blank
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 335055	

		MB	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier									
Sulfate	ND				1.5	0.50	mg/L			01/12/23 11:49	1

Lab Sample ID: LCS 410-335055/3	Client Sample ID: Lab Control Sample
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 335055	

		Spike	LCS	LCS			Unit	D	%Rec	%Rec	Limits
Analyte	Added	Result	Qualifier								
Sulfate	7.50	7.65					mg/L		102		90 - 110

Lab Sample ID: LCSD 410-335055/4	Client Sample ID: Lab Control Sample Dup
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 335055	

		Spike	LCSD	LCSD			Unit	D	%Rec	%Rec	Limits	RPD	RPD	Limit
Analyte	Added	Result	Qualifier											
Sulfate	7.50	7.68					mg/L		102		90 - 110	0	20	

Lab Sample ID: LCS 410-334909/1-A	Client Sample ID: Lab Control Sample
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 335045	

		Spike	LCS	LCS			Unit	D	%Rec	%Rec	Limits
Analyte	Added	Result	Qualifier								
Sulfate	50.0	56.5	*+				mg/Kg		113		90 - 110

Lab Sample ID: MB 410-334909/2-A	Client Sample ID: Method Blank
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 335696	

		MB	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier									
Sulfate	5.67	J			15	5.0	mg/Kg			01/13/23 12:55	1

Lab Sample ID: LCS 410-334909/1-A	Client Sample ID: Lab Control Sample
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 335696	

		Spike	LCS	LCS			Unit	D	%Rec	%Rec	Limits
Analyte	Added	Result	Qualifier								
Sulfate	50.0	56.5	*+				mg/Kg		113		90 - 110

Lab Sample ID: 410-110432-1 MS	Client Sample ID: Mettiki Dryer Ash Grab Solid Sample
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 335696	

	Sample	Sample	Spike	MS	MS		Unit	D	%Rec	%Rec	Limits
Analyte	Result	Qualifier	Added	Result	Qualifier						
Sulfate	2000	B *+ cn	49.4	1780	4 cn		mg/Kg	☼	-480		90 - 110

Lab Sample ID: 410-110432-1 DU	Client Sample ID: Mettiki Dryer Ash Grab Solid Sample
Matrix: Solid	Prep Type: Soluble
Analysis Batch: 335696	

	Sample	Sample	Spike	DU	DU		Unit	D	%Rec	%Rec	Limits	RPD	RPD	Limit
Analyte	Result	Qualifier	Added	Result	Qualifier									
Sulfate	2000	B *+ cn		1810	*+ cn		mg/Kg	☼				11	15	

QC Sample Results

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: LB 410-332401/1-B
Matrix: Solid
Analysis Batch: 335055

Client Sample ID: Method Blank
Prep Type: ASTM Leach

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Sulfate	1.74		1.5	0.50	mg/L			01/12/23 16:24	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-332701/1-A
Matrix: Solid
Analysis Batch: 333246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 332701

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		20	8.0	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Arsenic	ND		3.0	1.4	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Barium	ND		0.50	0.15	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Cadmium	ND		0.50	0.10	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Chromium	ND		1.5	0.35	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Copper	ND		2.0	0.77	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Lead	ND		1.5	0.60	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Lithium	ND		5.0	1.4	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Manganese	ND		1.0	0.40	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Molybdenum	ND		1.0	0.26	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Selenium	ND		5.0	1.5	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Silver	ND		1.0	0.40	mg/Kg		01/05/23 04:13	01/06/23 07:08	1
Zinc	ND		2.0	0.80	mg/Kg		01/05/23 04:13	01/06/23 07:08	1

Lab Sample ID: MB 410-332701/1-A
Matrix: Solid
Analysis Batch: 334584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 332701

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	ND		20	6.1	mg/Kg		01/05/23 04:13	01/11/23 17:02	1
Iron	ND		20	6.2	mg/Kg		01/05/23 04:13	01/11/23 17:02	1

Lab Sample ID: LCS 410-332701/2-A
Matrix: Solid
Analysis Batch: 333246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 332701

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aluminum	500	463		mg/Kg		93	80 - 120
Arsenic	50.0	49.5		mg/Kg		99	80 - 120
Barium	50.0	50.3		mg/Kg		101	80 - 120
Cadmium	5.00	5.03		mg/Kg		101	80 - 120
Chromium	50.0	51.7		mg/Kg		103	80 - 120
Copper	50.0	50.3		mg/Kg		101	80 - 120
Lead	5.00	5.51		mg/Kg		110	80 - 120
Lithium	50.0	50.0		mg/Kg		100	80 - 120
Manganese	50.0	49.7		mg/Kg		99	80 - 120
Molybdenum	5.00	5.06		mg/Kg		101	80 - 120
Selenium	10.0	9.03		mg/Kg		90	80 - 120
Silver	5.00	4.85		mg/Kg		97	80 - 120
Zinc	50.0	50.0		mg/Kg		100	80 - 120

QC Sample Results

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-332701/2-A
Matrix: Solid
Analysis Batch: 334584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 332701

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Boron	50.0	45.2		mg/Kg		90	80 - 120
Iron	500	524		mg/Kg		105	80 - 120

Lab Sample ID: MB 410-334146/1-A
Matrix: Solid
Analysis Batch: 335429

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 334146

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		3.5	1.0	mg/L		01/10/23 14:02	01/13/23 15:54	1
Arsenic	ND		0.50	0.16	mg/L		01/10/23 14:02	01/13/23 15:54	1
Barium	ND		0.050	0.010	mg/L		01/10/23 14:02	01/13/23 15:54	1
Boron	ND	^3+	0.30	0.12	mg/L		01/10/23 14:02	01/13/23 15:54	1
Cadmium	ND		0.050	0.010	mg/L		01/10/23 14:02	01/13/23 15:54	1
Chromium	ND		0.15	0.030	mg/L		01/10/23 14:02	01/13/23 15:54	1
Copper	ND		0.20	0.080	mg/L		01/10/23 14:02	01/13/23 15:54	1
Iron	ND		2.0	0.80	mg/L		01/10/23 14:02	01/13/23 15:54	1
Lead	ND		0.15	0.071	mg/L		01/10/23 14:02	01/13/23 15:54	1
Lithium	ND		0.50	0.11	mg/L		01/10/23 14:02	01/13/23 15:54	1
Manganese	ND		0.10	0.030	mg/L		01/10/23 14:02	01/13/23 15:54	1
Molybdenum	ND		0.10	0.020	mg/L		01/10/23 14:02	01/13/23 15:54	1
Selenium	ND		0.50	0.16	mg/L		01/10/23 14:02	01/13/23 15:54	1
Silver	ND		0.10	0.050	mg/L		01/10/23 14:02	01/13/23 15:54	1
Zinc	ND		0.20	0.037	mg/L		01/10/23 14:02	01/13/23 15:54	1

Lab Sample ID: MB 410-334146/1-A
Matrix: Solid
Analysis Batch: 335913

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 334146

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		0.10	0.020	mg/L		01/10/23 14:02	01/16/23 14:19	1

Lab Sample ID: LCS 410-334146/2-A
Matrix: Solid
Analysis Batch: 335429

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 334146

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aluminum	50.0	51.6		mg/L		103	80 - 120
Arsenic	5.00	5.23		mg/L		105	80 - 120
Barium	5.00	5.20		mg/L		104	80 - 120
Boron	5.00	5.58	^3+	mg/L		112	80 - 120
Cadmium	0.500	0.513		mg/L		103	80 - 120
Chromium	5.00	5.08		mg/L		102	80 - 120
Copper	5.00	5.28		mg/L		106	80 - 120
Iron	50.0	51.5		mg/L		103	80 - 120
Lead	0.500	0.510		mg/L		102	80 - 120
Lithium	5.00	5.14		mg/L		103	80 - 120
Manganese	5.00	5.19		mg/L		104	80 - 120
Molybdenum	0.500	0.506		mg/L		101	80 - 120
Selenium	1.00	1.13		mg/L		113	80 - 120

QC Sample Results

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-334146/2-A
Matrix: Solid
Analysis Batch: 335429

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 334146

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Silver	0.500	0.501		mg/L		100	80 - 120
Zinc	5.00	5.42		mg/L		108	80 - 120

Lab Sample ID: LCS 410-334146/2-A
Matrix: Solid
Analysis Batch: 335913

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 334146

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Molybdenum	0.500	0.470		mg/L		94	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-333228/1-A
Matrix: Solid
Analysis Batch: 333802

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333228

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		01/06/23 10:22	01/09/23 13:56	1

Lab Sample ID: LCS 410-333228/2-A
Matrix: Solid
Analysis Batch: 333802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333228

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00100	0.000891		mg/L		89	80 - 118

Lab Sample ID: MB 410-334151/1-A
Matrix: Solid
Analysis Batch: 335079

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 334151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		01/10/23 14:14	01/12/23 17:18	1

Lab Sample ID: LCS 410-334151/2-A
Matrix: Solid
Analysis Batch: 335079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 334151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00100	0.000950		mg/L		95	80 - 118

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 410-332704/1-A
Matrix: Solid
Analysis Batch: 333409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 332704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.036	0.012	mg/Kg		01/05/23 04:36	01/06/23 14:37	1

QC Sample Results

Client: Mettiki Coal Corporation
Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-332704/2-A
Matrix: Solid
Analysis Batch: 333409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 332704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.100	0.108		mg/Kg		108	80 - 120

QC Association Summary

Client: Mettiki Coal Corporation
Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

HPLC/IC

Leach Batch: 332401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	ASTM Leach	Solid	D3987-85	
LB 410-332401/1-B	Method Blank	ASTM Leach	Solid	D3987-85	

Leach Batch: 334909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Soluble	Solid	DI Leach	
MB 410-334909/2-A	Method Blank	Soluble	Solid	DI Leach	
LCS 410-334909/1-A	Lab Control Sample	Soluble	Solid	DI Leach	
410-110432-1 MS	Mettiki Dryer Ash Grab Solid Sample	Soluble	Solid	DI Leach	
410-110432-1 DU	Mettiki Dryer Ash Grab Solid Sample	Soluble	Solid	DI Leach	

Analysis Batch: 335045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-334909/1-A	Lab Control Sample	Soluble	Solid	EPA 300.0 R2.1	334909

Analysis Batch: 335055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	ASTM Leach	Solid	EPA 300.0 R2.1	332401
LB 410-332401/1-B	Method Blank	ASTM Leach	Solid	EPA 300.0 R2.1	332401
MB 410-335055/5	Method Blank	Total/NA	Solid	EPA 300.0 R2.1	
LCS 410-335055/3	Lab Control Sample	Total/NA	Solid	EPA 300.0 R2.1	
LCSD 410-335055/4	Lab Control Sample Dup	Total/NA	Solid	EPA 300.0 R2.1	

Analysis Batch: 335696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Soluble	Solid	EPA 300.0 R2.1	334909
MB 410-334909/2-A	Method Blank	Soluble	Solid	EPA 300.0 R2.1	334909
LCS 410-334909/1-A	Lab Control Sample	Soluble	Solid	EPA 300.0 R2.1	334909
410-110432-1 MS	Mettiki Dryer Ash Grab Solid Sample	Soluble	Solid	EPA 300.0 R2.1	334909
410-110432-1 DU	Mettiki Dryer Ash Grab Solid Sample	Soluble	Solid	EPA 300.0 R2.1	334909

Metals

Prep Batch: 332701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Total/NA	Solid	3050B	
MB 410-332701/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-332701/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 332704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Total/NA	Solid	7471A	
MB 410-332704/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 410-332704/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Leach Batch: 332714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	TCLP	Solid	1311	

QC Association Summary

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Metals

Prep Batch: 333228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	TCLP	Solid	7470A	332714
MB 410-333228/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 410-333228/2-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 333246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Total/NA	Solid	6010C	332701
MB 410-332701/1-A	Method Blank	Total/NA	Solid	6010C	332701
LCS 410-332701/2-A	Lab Control Sample	Total/NA	Solid	6010C	332701

Analysis Batch: 333409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Total/NA	Solid	7471A	332704
MB 410-332704/1-A	Method Blank	Total/NA	Solid	7471A	332704
LCS 410-332704/2-A	Lab Control Sample	Total/NA	Solid	7471A	332704

Analysis Batch: 333802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	TCLP	Solid	7470A	333228
MB 410-333228/1-A	Method Blank	Total/NA	Solid	7470A	333228
LCS 410-333228/2-A	Lab Control Sample	Total/NA	Solid	7470A	333228

Prep Batch: 334146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	TCLP	Solid	3005A	332714
MB 410-334146/1-A	Method Blank	Total Recoverable	Solid	3005A	
LCS 410-334146/2-A	Lab Control Sample	Total Recoverable	Solid	3005A	

Prep Batch: 334151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-334151/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 410-334151/2-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 334584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Total/NA	Solid	6010C	332701
MB 410-332701/1-A	Method Blank	Total/NA	Solid	6010C	332701
LCS 410-332701/2-A	Lab Control Sample	Total/NA	Solid	6010C	332701

Analysis Batch: 335079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-334151/1-A	Method Blank	Total/NA	Solid	7470A	334151
LCS 410-334151/2-A	Lab Control Sample	Total/NA	Solid	7470A	334151

Analysis Batch: 335429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	TCLP	Solid	6010C	334146
MB 410-334146/1-A	Method Blank	Total Recoverable	Solid	6010C	334146
LCS 410-334146/2-A	Lab Control Sample	Total Recoverable	Solid	6010C	334146

QC Association Summary

Client: Mettiki Coal Corporation
Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Metals

Analysis Batch: 335913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	TCLP	Solid	6010C	334146
MB 410-334146/1-A	Method Blank	Total Recoverable	Solid	6010C	334146
LCS 410-334146/2-A	Lab Control Sample	Total Recoverable	Solid	6010C	334146

General Chemistry

Analysis Batch: 332115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample

Lab Sample ID: 410-110432-1

Date Collected: 12/21/22 11:30

Matrix: Solid

Date Received: 12/28/22 10:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
ASTM Leach	Leach	D3987-85			332401	UNWS	ELLE	01/04/23 19:19 - 01/05/23 13:10 ¹
ASTM Leach	Analysis	EPA 300.0 R2.1		5	335055	L4QM	ELLE	01/12/23 19:48
TCLP	Leach	1311			332714	CZ7N	ELLE	01/05/23 15:13 - 01/06/23 09:06 ¹
TCLP	Prep	3005A			334146	HUH3	ELLE	01/10/23 14:02
TCLP	Analysis	6010C		1	335429	S4PD	ELLE	01/13/23 16:43
TCLP	Leach	1311			332714	CZ7N	ELLE	01/05/23 15:13 - 01/06/23 09:06 ¹
TCLP	Prep	3005A			334146	HUH3	ELLE	01/10/23 14:02
TCLP	Analysis	6010C		1	335913	S4PD	ELLE	01/16/23 15:19
TCLP	Leach	1311			332714	CZ7N	ELLE	01/05/23 15:13 - 01/06/23 09:06 ¹
TCLP	Prep	7470A			333228	UAMX	ELLE	01/09/23 05:52
TCLP	Analysis	7470A		1	333802	UEFS	ELLE	01/09/23 14:36
Total/NA	Analysis	Moisture		1	332115	X4C8	ELLE	01/03/23 13:46

Client Sample ID: Mettiki Dryer Ash Grab Solid Sample

Lab Sample ID: 410-110432-1

Date Collected: 12/21/22 11:30

Matrix: Solid

Date Received: 12/28/22 10:24

Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			334909	L4QM	ELLE	01/12/23 11:17
Soluble	Analysis	EPA 300.0 R2.1		50	335696	L4QM	ELLE	01/13/23 13:59
Total/NA	Prep	3050B			332701	UAMX	ELLE	01/05/23 04:13
Total/NA	Analysis	6010C		1	333246	VYB8	ELLE	01/06/23 07:59
Total/NA	Prep	3050B			332701	UAMX	ELLE	01/05/23 04:13
Total/NA	Analysis	6010C		1	334584	S4PD	ELLE	01/11/23 17:15
Total/NA	Prep	7471A			332704	UAMX	ELLE	01/05/23 04:36
Total/NA	Analysis	7471A		1	333409	UEFS	ELLE	01/06/23 15:21

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Mettiki Coal Corporation
 Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-23
<p>The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.</p>			
Analysis Method	Prep Method	Matrix	Analyte
6010C	3005A	Solid	Aluminum
6010C	3005A	Solid	Arsenic
6010C	3005A	Solid	Barium
6010C	3005A	Solid	Boron
6010C	3005A	Solid	Cadmium
6010C	3005A	Solid	Chromium
6010C	3005A	Solid	Copper
6010C	3005A	Solid	Iron
6010C	3005A	Solid	Lead
6010C	3005A	Solid	Lithium
6010C	3005A	Solid	Manganese
6010C	3005A	Solid	Molybdenum
6010C	3005A	Solid	Selenium
6010C	3005A	Solid	Silver
6010C	3005A	Solid	Zinc
6010C	3050B	Solid	Aluminum
6010C	3050B	Solid	Arsenic
6010C	3050B	Solid	Barium
6010C	3050B	Solid	Boron
6010C	3050B	Solid	Cadmium
6010C	3050B	Solid	Chromium
6010C	3050B	Solid	Copper
6010C	3050B	Solid	Iron
6010C	3050B	Solid	Lead
6010C	3050B	Solid	Lithium
6010C	3050B	Solid	Manganese
6010C	3050B	Solid	Molybdenum
6010C	3050B	Solid	Selenium
6010C	3050B	Solid	Silver
6010C	3050B	Solid	Zinc
7470A	7470A	Solid	Mercury
7471A	7471A	Solid	Mercury
EPA 300.0 R2.1		Solid	Sulfate
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Mettiki Coal Corporation
Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010C	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
7471A	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
1311	TCLP Extraction	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
7471A	Preparation, Mercury	SW846	ELLE
D3987-85	ASTM Leaching Procedure	ASTM	ELLE
DI Leach	Deionized Water Leaching Procedure	ASTM	ELLE

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Mettiki Coal Corporation
Project/Site: Quarterly CCB Reporting

Job ID: 410-110432-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-110432-1	Mettiki Dryer Ash Grab Solid Sample	Solid	12/21/22 11:30	12/28/22 10:24

Login Sample Receipt Checklist

Client: Mettiki Coal Corporation

Job Number: 410-110432-1

Login Number: 110432

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: McCaskey, Jonathan

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	No ice present, no attempt to chill
Cooler Temperature is acceptable (</=6C, not frozen).	False	Thermal preservation not required.
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	