

February 7, 2014

RECEIVED FEB 1 1 2014

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 2013 Annual Generator Tonnage Report to meet the requirements of COMAR 26.04.10.08. The report covers the period from January 1, 2013 through December 31, 2013.

If you need additional information or clarification, please call.

Sincerely,

James C. Ashby

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land Management Administration • Solid Waste Program 1800 Washington Boulevard • Suite 605 • Baltimore Maryland 21230-1719 410-537-3315 • 800-633-6101 x3315 • www.mde.maryland.gov

Coal Combustion Byproducts (CCBs) Annual Generator Tonnage Report Instructions for Calendar Year 2013

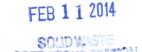
The following is general information relating to the requirement for reporting quantities of coal combustion byproducts (CCBs) that were managed in the State of Maryland during calendar year 2013. Please answer the questions on the form provided, attaching additional information and any requested supplemental information to the back of the form. Note that the form for this year www.mean. requires both volume and syriable of the CLRs. and reed, it was know, now of these varameters

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@marylandlgov.

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 the Department 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.

31-Jan-14

- (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."

Page 1 of 6 TTY Users: 800-735-2258 Printed on Recycled Paper 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 the Department by March 1, 2014:

| 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 City | Maryland State | 21550 Zip |
| County: Garrett | | |
| Contact Information (Person filing report or Enviro | nmental Manager) | |
| Facility Telephone No.: 301-334-5336 | Facility Fax No.: <u>301-334-16</u> | 02 |
| Contact Name:James C. Ashby | | |
| Contact Title: Manager, Environmental Af | fairs | |
| Contact Address: 293 Table Rock Road Street | | |
| Contact Address: Oakland City | Maryland State | 21550 Zip |
| Contact Email:jim.ashby@arlp.com | | |
| Contact Telephone No.: 301-334-5336 | _ Contact Fax No.: 301-334-16 | 02 |

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

| Facility Name: | Mettiki Coal, LLC | CCB Tonnage Report – 2013 |
|----------------|-------------------|---------------------------|
| | | |

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:

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 pulverized coal burners is passed through a fluidized bed of the wet washed coal in the thermal dryer to reduce the moisture content of the processed coal from

approximately 15% to approximately 5% to meet contract specifications for shipment to the

C. The volume and weight of CCBs generated during calendar year 2013, 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.

<u>Table I: Volume and Weight of CCBs Generated for Calendar Year 2013:</u> Please note the change to this table from previous years, to include both the volume and weight of the types of CCBs your facility produces.

| Volume : | and Weight of CCBs Ge | enerated for Calendar Y | Year 2013 |
|--|----------------------------------|----------------------------------|----------------------------------|
| Thermal Dryer Ash Type of CCB | Type of CCB | Type of CCB | Type of CCB |
| 22,352.64 Volume of CCB, in Cubic Yards | Volume of CCB, in Cubic Yards | Volume of CCB, in Cubic Yards | Volume of CCB, in Cubic Yards |
| 1397.04 Weight of CCB, in Tons | Weight of CCB, in Tons | Weight of CCB, in Tons | Weight of CCB, in Tons |

31-Jan-14

consumer.

TTY Users: 800-735-2258

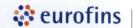
| Facility Name: _ | Mettiki Coal, LLC | CCB Tonnage Report – 2013 |
|---|--|---|
| Additional notes | | |
| | | |
| | | |
| their use that wer this information to E. Copies of all | to the report. NONE | ents, or both, conducted relating to the CCBs or apany during the reporting year. Please attach |
| F. A description (a) The ty Paragraph C above | of how you disposed of or used pes and volume of CCBs disposed including any CCBs stored designs. | your CCBs in calendar year 2013, identifying: sed of or used (if different than described in luring the previous calendar year, the location of type and volume of CCBs disposed of or used |
| Mettiki owned pr | ed in Table 1 are disposed in MI operty near the mine in Garrett son site for reclamation. | DE Permit # DM84-101 refuse disposal site on County Maryland. Material is comingled with |
| | | |
| | | |
| | | |

| Facility Name: | Mettiki Coal, LLC | CCB Tonnage Report – 2013 |
|-------------------|--|--|
| and (b) The diff | amount was a brutum a and r | column of CCD at |
| | erent uses by type and v disposed in the permitte | |
| | | |
| | | |
| | | |
| | 14 | |
| | | |
| | | |
| | | |
| If the space prov | vided is insufficient, ple | ase attach additional pages in a similar format. |
| G. A description | n of how you intend to | dispose of or use CCBs in the next 5 years, identifying: |
| intended disposa | • 1 | Bs intended to be disposed of or used, the location of luse sites, and the type and volume of CCBs intended to |
| | | ge of approximately 27,000 cu/ft (1,700 tons) per year of in our permitted coal refuse disposal site. |
| | | |
| | | |
| | | |
| | | |
| - | | |
| and (b) The diffe | erent intended uses by t | ype and volume of CCBs. |
| Disposal/reclam | nation | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| TC 4 | · 1 1 · · · · · · · · · · · · · · · · · | |

| This is to certify that, to the b any attached documents are tr | est of my knowledge, the information contained in rue, accurate, and complete. | this report and |
|---|---|------------------|
| Michae Burch Signature | Michael B. Burch, General Manager, 301-334-5331 Name, Title, & Telephone No. (Print or Type) Your Email Address | 2/7/2014 Date |

V: Attachments (please list):

| Attachment 1 – chemical characterization data | |
|---|--|
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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

by JA

REVISED

Sample Description: Mettiki Dryer Ash Grab Solid Sample

Ash Sampling 2013

LL Sample # SW 7283014

LL Group # 1434985 Account # 07329

Project Name: Ash Sampling

Collected: 11/18/2013 10:10

Mettiki Coal Corporation

293 Table Rock Road

Oakland MD 21550

Submitted: 11/19/2013 09:10 Reported: 12/27/2013 16:42

| CAT No. | Analysis Name | CAS Number | Dry Result | Dry Method Detection Limit | Dilution Factor |
|------------|---------------|-------------------------------|---------------------|----------------------------------|--------------------|
| Metal | s | SW-846 6010B | mg/kg | mg/kg | |
| 01643 | Aluminum | 7429-90-5 | 1,260 | 7.21 | 1 |
| 06935 | Arsenic | 7440-38-2 | N.D. | 0.700 | 1 |
| 06946 | Barium | 7440-39-3 | 17.7 | 0.0330 | 1 |
| 07914 | Boron | 7440-42-8 | 0.970 J | 0.840 | 1 |
| 06949 | Cadmium | 7440-43-9 | N.D. | 0.0760 | 1 |
| 06951 | Chromium | 7440-47-3 | 8.51 | 0.160 | 1 |
| 06953 | Copper | 7440-50-8 | 27.4 | 0.290 | 1 |
| 06955 | Lead | 7439-92-1 | 0.521 J | 0.500 | 1 |
| 01656 | Lithium | 7439-93-2 | 4.7 | 0.34 | 1 |
| 06958 | Manganese | 7439-96-5 | 6.70 | 0.0830 | 1 |
| 06960 | Molybdenum | 7439-98-7 | 0.185 J | 0.170 | 1 |
| 06936 | Selenium | 7782-49-2 | N.D. | 0.800 | 1 |
| 06966 | Silver | 7440-22-4 | N.D. | 0.170 | 1 |
| 06972 | Zinc | 7440-66-6 | 1.66 J | 0.200 | 1 |
| | | SW-846 7471A | mg/kg | mg/kg | |
| 00159 | Mercury | 7439-97-6 | N.D. | 0.0099 | 1 |
| let C | hemistry | SM 2540 G-1997 | % | % | |
| 00111 | Moisture | n.a. | N.D. | 0.50 | 1 |
| | | nts the loss in weight of the | sample after oven d | drying at | |

103 - 105 degrees Celsius. The moisture result reported is on an

as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

| | Laboratory | Sample | Analysis | s Record |
|--|------------|--------|----------|----------|
|--|------------|--------|----------|----------|

| Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------------|--|--|---|---|--|---|
| Aluminum | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Arsenic | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Barium | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Boron | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Cadmium | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Chromium | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Copper | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Lead | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Lithium | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Manganese | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Molybdenum | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Selenium | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Silver | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Zinc | SW-846 6010B | 1 | 133305708004 | 11/30/2013 17 | :26 Eric L Eby | 1 |
| Mercury | SW-846 7471A | 1 | 133255711003 | 11/22/2013 10 | :25 Damary Valentin | 1 |
| | Aluminum Arsenic Barium Boron Cadmium Chromium Copper Lead Lithium Manganese Molybdenum Selenium Silver Zinc | Analysis Name Aluminum Arsenic SW-846 6010B Barium SW-846 6010B Boron SW-846 6010B Cadmium SW-846 6010B Chromium SW-846 6010B Copper SW-846 6010B Lead Lithium SW-846 6010B Manganese Molybdenum SW-846 6010B SW-846 6010B | Analysis Name Aluminum Aluminum Arsenic SW-846 6010B 1 Barium SW-846 6010B 1 Boron SW-846 6010B 1 Cadmium SW-846 6010B 1 Chromium SW-846 6010B 1 Chromium SW-846 6010B 1 Lead SW-846 6010B 1 Lithium SW-846 6010B 1 Manganese SW-846 6010B 1 Molybdenum SW-846 6010B 1 Molybdenum SW-846 6010B 1 Selenium SW-846 6010B 1 SSW-846 6010B 1 Selenium SW-846 6010B 1 Silver SW-846 6010B 1 Silver SW-846 6010B 1 Silver SW-846 6010B 1 Silver SW-846 6010B 1 | Analysis Name Method Trial# Batch# Aluminum SW-846 6010B 1 133305708004 Arsenic SW-846 6010B 1 133305708004 Barium SW-846 6010B 1 133305708004 Boron SW-846 6010B 1 133305708004 Cadmium SW-846 6010B 1 133305708004 Cadmium SW-846 6010B 1 133305708004 Chromium SW-846 6010B 1 133305708004 Copper SW-846 6010B 1 133305708004 Lead SW-846 6010B 1 133305708004 Lead SW-846 6010B 1 133305708004 Lithium SW-846 6010B 1 133305708004 Manganese SW-846 6010B 1 133305708004 Molybdenum SW-846 6010B 1 133305708004 Molybdenum SW-846 6010B 1 133305708004 Selenium SW-846 6010B 1 133305708004 Selenium SW-846 6010B 1 133305708004 Silver SW-846 6010B 1 133305708004 Silver SW-846 6010B 1 133305708004 Silver SW-846 6010B 1 133305708004 | Analysis Name Method Trial# Batch# Analysis Date and Time | Aluminum SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Barium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Boron SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Cadmium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Cadmium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Cadmium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Cadmium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Cadmium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Cadmium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Cadmium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Cadmium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Lead SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Lithium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Manganese SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 17:26 Eric L Eby Selenium SW-846 6010B 1 133305708004 11/30/2013 |



Analysis Report

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REVISED

Sample Description: Mettiki Dryer Ash Grab Solid Sample

Ash Sampling 2013

LL Sample # SW 7283014 LL Group # 1434985 Account # 07329

Project Name: Ash Sampling

Collected: 11/18/2013 10:10

by JA

Mettiki Coal Corporation 293 Table Rock Road

Oakland MD 21550

Submitted: 11/19/2013 09:10 Reported: 12/27/2013 16:42

| | | | Labora | tory Sa | ample Analysi | is Record | | | |
|------------|--------------------|------------|-----------------------|---------|---------------|-------------------------|-------|------------------|--------------------|
| CAT No. | Analysis | Name | Method | Trial# | Batch# | Analysis Date and Ti | me | Analyst | Dilution Factor |
| 05708 | SW SW846 Digest | ICP/ICP MS | SW-846 3050B | 1 | 133305708004 | 11/29/2013 | 11:03 | Annamaria Kuhns | 1 |
| 05711 | SW SW846 | Hg Digest | SW-846 7471A modified | 1 | 133255711003 | 11/22/2013 | 03:30 | Annamaria Kuhns | 1 |
| 00111 | Moisture | | SM 2540 G-1997 | 1 | 13326820006B | 11/23/2013 | 00:26 | Scott W Freisher | 1 |



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

REVISED

Sample Description: Mettiki Dryer Ash Grab Solid Sample

TCLP NON-VOLATILE EXTRACTION

Ash Sampling 2013

LL Sample # TL 7283015 LL Group # 1434985 Account # 07329

Project Name: Ash Sampling

Collected: 11/18/2013 10:10

by JA

Mettiki Coal Corporation

293 Table Rock Road Oakland MD 21550

Submitted: 11/19/2013 09:10 Reported: 12/27/2013 16:42

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|------------|-------------------|-----------------------------|-----------------------|--|--------------------|
| Metal | s | SW-846 6010B | mg/l | mg/l | |
| 01743 | Aluminum | 7429-90-5 | 1.94 | 0.0828 | 1 |
| 07035 | Arsenic | 7440-38-2 | N.D. | 0.0068 | 1 |
| 07046 | Barium | 7440-39-3 | 0.172 | 0.0017 | 5 |
| | The barium result | was performed by the Method | of Standard Addition. | | |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00076 | 1 |
| 07051 | Chromium | 7440-47-3 | 0.0067 J | 0.0016 | 1 |
| 07053 | Copper | 7440-50-8 | 0.0729 | 0.0027 | 1 |
| 07055 | Lead | 7439-92-1 | 0.0206 | 0.0047 | 1 |
| 07058 | Manganese | 7439-96-5 | 0.0816 | 0.00083 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0084 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0021 | 1 |
| 07072 | Zinc | 7440-66-6 | 0.0291 | 0.0020 | 1 |
| | | SW-846 7470A | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000060 | 1 |

General Sample Comments

If the analysis is for determination of Hazardous Waste Characteristics, see Table 1 in EPA Code of Federal Regulations 40 CFR 261.24.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| | | Method | | | | | cross Gard 40 | | |
|-------|-------------------------|--------------|--------|--------------|-------------|-------|-------------------|----------|--|
| CAT | Analysis Name | neciioa | Trial# | Batch# | Analysis | | Analyst | Dilution | |
| No. | | | | | Date and Ti | me | | Factor | |
| 01743 | Aluminum | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07035 | Arsenic | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07046 | Barium | SW-846 6010B | 2 | 133265705006 | 11/26/2013 | 09:29 | Eric L Eby | 5 | |
| 07049 | Cadmium | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07051 | Chromium | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07053 | Copper | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07055 | Lead | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07058 | Manganese | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07036 | Selenium | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07066 | Silver | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 07072 | Zinc | SW-846 6010B | 1 | 133265705006 | 11/24/2013 | 21:34 | Tara L Snyder | 1 | |
| 00259 | Mercury | SW-846 7470A | 1 | 133265713001 | 11/26/2013 | 11:06 | Damary Valentin | 1 | |
| 05705 | WW/TL SW 846 ICP Digest | SW-846 3010A | 1 | 133265705006 | 11/24/2013 | 07:40 | James L Mertz | 1 | |
| | (tot) | | | | | | | | |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 133265713001 | 11/25/2013 | 16:05 | Nelli S Markaryan | 1 | |
| 00947 | TCLP Non-volatile | SW-846 1311 | 1 | 13325-2486- | 11/21/2013 | 12:30 | Christina A Huber | n.a. | |
| | Extraction | | | 0947A | | | | | |



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

REVISED

Sample Description: Mettiki Dryer Ash Grab Solid Sample

SPLP NON-VOLATILE EXTRACTION

Ash Sampling 2013

LL Sample # TL 7283016 LL Group # 1434985

Account # 07329

Project Name: Ash Sampling

Collected: 11/18/2013 10:10

by JA

Mettiki Coal Corporation

293 Table Rock Road

Submitted: 11/19/2013 09:10 Reported: 12/27/2013 16:42 Oakland MD 21550

| CAT No. | Analysis Name | CAS Number | As Received Result | As Received Method Detection Limit | Dilution Factor |
|------------|---------------|--------------|-----------------------|--|--------------------|
| Metal | s | SW-846 6010B | mg/l | mg/l | |
| 01743 | Aluminum | 7429-90-5 | 0.371 | 0.0828 | 1 |
| 07035 | Arsenic | 7440-38-2 | N.D. | 0.0068 | 1 |
| 07046 | Barium | 7440-39-3 | 0.0232 | 0.00033 | 1 |
| 07049 | Cadmium | 7440-43-9 | N.D. | 0.00076 | 1 |
| 07051 | Chromium | 7440-47-3 | N.D. | 0.0016 | 1 |
| 07053 | Copper | 7440-50-8 | N.D. | 0.0027 | 1 |
| 07055 | Lead | 7439-92-1 | N.D. | 0.0047 | 1 |
| 07058 | Manganese | 7439-96-5 | N.D. | 0.00083 | 1 |
| 07036 | Selenium | 7782-49-2 | N.D. | 0.0084 | 1 |
| 07066 | Silver | 7440-22-4 | N.D. | 0.0021 | 1 |
| 07072 | Zinc | 7440-66-6 | 0.0026 J | 0.0020 | 1 |
| | | SW-846 7470A | mg/l | mg/l | |
| 00259 | Mercury | 7439-97-6 | N.D. | 0.000060 | 1 |

General Sample Comments

If the analysis is for determination of Hazardous Waste Characteristics, see Table 1 in EPA Code of Federal Regulations 40 CFR 261.24.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT | Analysis Name | Method | Trial# | Batch# | Analysis | | Analyst | Dilution Factor | |
|-------|-------------------------|--------------|--------|--------------|-------------|-------|-------------------|--------------------|--|
| No. | | | | | Date and Ti | me | | | |
| 01743 | Aluminum | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 02:45 | John W Yanzuk II | 1 | |
| 07035 | Arsenic | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 22:42 | John W Yanzuk II | 1 | |
| 07046 | Barium | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 02:45 | John W Yanzuk II | 1 | |
| 07049 | Cadmium | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 02:45 | John W Yanzuk II | 1 | |
| 07051 | Chromium | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 02:45 | John W Yanzuk II | 1 | |
| 07053 | Copper | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 22:42 | John W Yanzuk II | 1 | |
| 07055 | Lead | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 22:42 | John W Yanzuk II | 1 | |
| 07058 | Manganese | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 02:45 | John W Yanzuk II | 1 | |
| 07036 | Selenium | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 02:45 | John W Yanzuk II | 1 | |
| 07066 | Silver | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 02:45 | John W Yanzuk II | 1 | |
| 07072 | Zinc | SW-846 6010B | 1 | 133265705009 | 11/27/2013 | 02:45 | John W Yanzuk II | 1 | |
| 00259 | Mercury | SW-846 7470A | 1 | 133265713002 | 11/26/2013 | 11:33 | Damary Valentin | 1 | |
| 05705 | WW/TL SW 846 ICP Digest | SW-846 3010A | 1 | 133265705009 | 11/26/2013 | 11:01 | James L Mertz | 1 | |
| | (tot) | | | | | | | | |
| 05713 | WW SW846 Hg Digest | SW-846 7470A | 1 | 133265713002 | 11/25/2013 | 17:00 | Nelli S Markaryan | 1 | |
| 01567 | Synthetic Precipitation | SW-846 1312 | 1 | 13325-2486- | 11/21/2013 | 12:30 | Christina A Huber | n.a. | |
| | Leach | | | 1567 | | | | | |

Sturm Environmental Services

COMPANY: METTIKI COAL COMPANY

SAMPLE ID:

DATE: NOVEMBER 21, 2013

Calcium Carbonate Equilvalent Tons/1000 Tons of Material

ACID BASE ACCOUNT

| | | | | _ | Ц | | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | |
|--|---------------------------------|----------------------------|------|---|------|---|---|---|-------|---|---|---|-------|---|---|---|--|
| | Paste pH | 8.0 | | | | | | | | | | | | | | | |
| | Excess CaCO ₃ | 14.46 | | | | | | | | | | | | | | | |
| | Max Needed (pH-7) | | | | | | | | | | | | | | | | |
| | N.P. CaCO ₃ Equiv | 14.52 | 1 | | | | | | | | | | | | | | |
| | Max from % Sulfur | 900. | | | | | | | | | | | | | | | |
| | % Sulfur | .002 | | | | | | | | | | | | | | | |
| | Color | 2.5Y 2.5/0 | • | | | | | | | | | | | | | | |
| | Fiz | 2 | , | | | | | | | | | | | | | | |
| | Rock Type | | | | | ń | | | | | | | | | | | |
| | Strata Thick (feet) | | | | 0.00 | | | | | | | | | | | | |
| | DEPTH (feet) | ASH 11-20-13 | | | | | | | | | | | | | | | |
| | SAMPLE ID | METTIKI DRYER ASH 11-20-13 | | | | | | | | | | | | | | | |

* PYRITIC SULFUR

APPROVED

The Walls

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