



DKU

B6237
MV

Dedicated to Providing Top Quality, Cost Effective, and
Environmentally Safe Water and Wastewater Services to Our Customers

YPSILANTI COMMUNITY UTILITIES AUTHORITY

2777 STATE ROAD
YPSILANTI, MICHIGAN 48198-9112
TELEPHONE: 734-484-4600
WEBSITE: www.ycua.org

February 21, 2022

RECEIVED
MDEQ - JACKSON

MAR 03 2022

VIA ELECTRONIC MAIL AND FIRST CLASS MAIL

AIR QUALITY DIVISION

Ms. Diane Kavanaugh Vetort
Senior Environmental Quality Analyst
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
Jackson District Office, Air Quality Division
301 E. Louis B. Glick Highway
Jackson, MI 49201-1556

Re: **MI-ROP-B6237-2020**
Violation Notice

Dear Ms. Vetort:

The Ypsilanti Community Utilities Authority (YCUA) is in receipt of a Violation Notice (VN) from Jackson District Office - Department of Environment, Great Lakes and Energy (EGLE) dated February 1, 2022. The VN was issued following an exceedance of the Polychlorinated Biphenyls (PCBs) limit during the emissions testing conducted on November 22-23, 2021. As required by the Violation Notice, YCUA evaluated the emissions data, laboratory reports for the PCBs and investigated the probable causes of the exceedance. Please accept this letter and supporting information as YCUA's response to the Violation Notice.

YCUA's Renewable Operating Permit (ROP), MI-ROP-6237-20120 contains emission limits for Total PCB. The testing frequency for Total PCB is once every five years. Pursuant to this requirement, YCUA conducted the emissions testing on May 26, 2021. Prior to the May 26, 2021 emissions testing, YCUA conducted an emissions test and demonstrated compliance for PCBs on December 15- 16, 2015. Emissions testing conducted on May 26, 2021 indicated an exceedance of the PCB limit. Subsequently, the emissions testing was repeated on November 22-23, 2021. Both the May 26, 2021 testing and retest conducted on November 22-23, 2021 indicated elevated PCBs results in the first run followed by a downward trend in the second and third runs. Following is the summary of the results.

YCUA Biosolids Analytical		
Sampling Date	Matrix	Results (ppb) Minimum Detection Limit 330 ppb
22-Nov-21	Blended Dewatered sludge- Run 1	<330
23-Nov-21	Blended Dewatered sludge- Run 2	<330
23-Nov-21	Blended Dewatered sludge- Run 3	<330
20-Jan-22	Plant Influent	<330
20-Jan-22	Primary Sludge	<330
20-Jan-22	Secondary Sludge	<330
20-Jan-22	Biosolids Filtrate	<330

2. Fluid Bed Incinerator Operations: In order to better understand the anomaly in the PCB results and its downward trending the three runs during the emissions testing, YCUA retained the Dr. Ky Dangtran. Dr. Dangtran is an experienced professional in the thermal oxidation of sewage sludge and was involved with the design and installation of fluid bed incineration systems including YCUA FBIS. The consultation with Dr. Dangtran has suggested certain operational improvements that includes maintaining elevated temperature within the reactor for the destruction of the PCBs in the sewage sludge. YCUA FBIS was continually operated at or above the combustion bed and free board temperatures required by the ROP. Data trends during the recent emissions testing, has not suggested to YCUA any significant temperature variations in the reactor between the first run and subsequent runs 2 and 3. Additionally, YCUA has also contracted Arvos, the manufacturer of the primary heat exchanger and the secondary heat exchanger with a view to evaluate the impacts of elevated temperatures on the downstream heat recovery and emissions control devices. Consultation with Arvos indicated potential detrimental structural damages due to metal creep deformation and increased volumetric flow of flue gas from increased free board temperatures and use of quench system for temperature control. Additionally, Arvos indicated the possibility of creation of molten ash from high temperatures which could create blockages in the tube bundle of the heat exchangers. Hence it became evident that a delicate balance needs to be achieved with maintaining a high temperature in the reactor needed for the destruction of PCBs in the sewage sludge. Notwithstanding the suggestions from Arvos and Dr. Dangtran, since fall of 2017, YCUA has been maintaining the reactor on hot standby even when the sewage sludge is not fed to keep the reactor ready for processing sewage sludge.

Findings and Conclusion:

1. As noted in the prior response (submitted to EGLE on September 21, 2021) to the VN, YCUA monitoring of plant influent and biosolids for PCBs and has not found any elevated

January 31, 2022

Ypsilanti Comm. Utilities Auth.
2777 State Rd.
Ypsilanti, MI 48198

Subject: YCUA PCB Analysis
PCB Testing

Dear Mr. Mullapudi :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 01/21/2022 for the above mentioned project. NELAP/TNI Accredited Analysis and EGLE Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 79729 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,
Brighton Analytical, L.L.C.



Brighton Analytical LLC
 2105 Pless Drive
 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
 e-mail: bai-brighton@sbcglobal.net
 EGLE Certified #9404
 NELAC Accredited #176507

Sample Date: 01/20/2022
 Submit Date: 01/21/2022
 Report Date: 01/31/2022

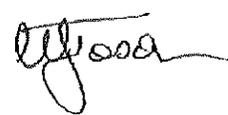
To: Ypsilanti Comm. Utilities Auth.
 2777 State Rd.
 Ypsilanti, MI 48198

BA Report Number: **79729** Project Name: **YCUA PCB Analysis**
 BA Sample ID: **CQ03051** Project Number: **PCB Testing**

Sample ID: **Filterate Grab**

Parameters	Result	Units	DL	Method Reference	Analyst	Analysis Date
PCB Analysis						
ARO 1016	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1221	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1232	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1242	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1248	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1254	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1260	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1262	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1268	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
Total PCB	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
PCB liquid (extraction)	Extracted			3510C/3545	MB	01/25/2022

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

Released by 
 Date 1/31/2022



Brighton Analytical LLC
 2105 Pless Drive
 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
 e-mail: bai-brighton@sbcglobal.net
 EGLE Certified #9404
 NELAC Accredited #176507

Sample Date: 01/20/2022
 Submit Date: 01/21/2022
 Report Date: 01/31/2022

To: Ypsilanti Comm. Utilities Auth.
 2777 State Rd.
 Ypsilanti, MI 48198

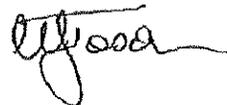
BA Report Number: **79729** Project Name: **YCUA PCB Analysis**

BA Sample ID: **CQ03053** Project Number: **PCB Testing**

Sample ID: **Influent - RAW Grab**

Parameters	Result	Units	DL	Method Reference	Analyst	Analysis Date
PCB Analysis						
ARO 1016	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1221	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1232	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1242	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1248	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1254	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1260	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1262	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
ARO 1268	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
Total PCB	Not detected	ug/L	0.2	EPA 608/608.3	TP	01/27/2022
PCB liquid (extraction)	Extracted			3510C/3545	MB	01/25/2022

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

Released by 
 Date 1/31/2022



BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY
CONTROL

QUOTATION



ESSIX
RESOURCES INC

Serving the Steel Industry

TO:

Sreedhar Mullapudi
SMullapudi@ycua.org
WWTP Olivine Sand
YCUA

1990 Reeves Rd. N.E., Warren, OH 44483

PH 330-372-2832

FX 330-372-9193

DATE	SALESPERSON	PREPARED BY
2/21/2022	DARIUS KOSOVAN	DARIUS KOSOVAN

PRODUCT	OLIVINE SAND		
SIZE -	INCAST LE30		
PACKAGING -	BULK-PNEUMATIC		
QUANTITY -	90,000 lbs		
PRICE -	\$0.2125 LB DELIVERED: YPSILANTI, MI (YCAU-2777 STATE RD) delivered *plus applicable fuel surcharge		
COMMENT -	Material to arrive into storage approximately June 2022. Delivery can be scheduled after arrival.		
TERMS -	NET 30		
VALIDITY -	3/15/2022		

The properties shown on this quote and certificate of analysis represent typical average results generated by Sibelco' (Olivine producer) standard practices and test methods and conducted under controlled condition, and should not be considered to be guaranteed specifications. Properties are subject to normal manufacturing statistical standard deviation ranges. Essix Resources is distributor for Sibelco olivine and is not responsible or liable for any modifications on specifications or properties on material produced by Sibelco.

Accepted by: _____

If Quotation is accepted, purchase orders are to be sent to Darius Kosovan at dkosovan@essixresources.com & kwalters@essixresources.com or faxed attention: Darius/Katie - 330-372-9193.



ESSIX
RESOURCES INC



Specification

INCAST LE30

ÅHEIM, NORWAY

PARTICLE SIZE ANALYSIS

Method: Dry Sieving. Sieves: ISO 565 (TBL 2)

	Sieve Size [mm]	Minimum [%]	Maximum [%]
[%] Retained on	1.000	0.0	0.5
individual sieves	<0.125	0.0	1.5

CHEMICAL COMPOSITION

Method: XRF

Component	Minimum [%wt]	Maximum [%wt]
MgO	48.0	-
SiO ₂	-	42.0
Fe ₂ O ₃	7.0	8.0
Cr ₂ O ₃	0.20	0.60
Al ₂ O ₃	0.20	0.80
NiO	0.20	0.40
MnO	0.00	0.10

Method: Loss on Ignition. Weight reduction after 30 minutes at 900°C in air.

	Minimum [%wt]	Maximum [%wt]
LOI	0.0	1.5



Tel: +46 31 733 2210
 Fax +46 31 733 2201
 Email: olive.nordic@sibelco.com

INCAST LE30 Åheim 1113



2105 Pless Drive Brighton, Michigan 48114 Phone (810)229-7575 Fax (810)229-8650 E-mail bai-brighton@sbcglobal.net

January 11, 2022

Ypsilanti Comm. Utilities Auth.
2777 State Rd.
Ypsilanti, MI 48198

Subject: NPDES Permit No. MI0042676
Emissions Test PCB Analysis

Dear Mr. Mullapudi :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 12/14/2021 for the above mentioned project. NELAP/TNI Accredited Analysis and EGLE Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 79186B when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,
Brighton Analytical, L.L.C.





Brighton Analytical LLC
 2105 Pless Drive
 Brighton, Michigan 48114
 Phone: (810)229-7575 (810)229-8650
 e-mail: bai-brighton@sbcglobal.net
 EGLE Certified #9404
 NELAC Accredited #176507

Sample Date: 11/23/2021
 Submit Date: 12/14/2021
 Report Date: 01/11/2022

To: Ypsilanti Comm. Utilities Auth.
 2777 State Rd.
 Ypsilanti, MI 48198

BA Report Number: **79186B** Project Name: **NPDES Permit No. MI0042676**
 BA Sample ID: **CQ01463** Project Number: **EmissionsTest PCBAnalysis**

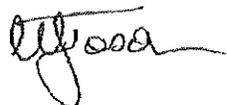
Sample ID: **Run 2 Biosolids Comp.**

Parameters	Result	Units	DL	Method Reference	Analyst	Analysis Date
PCB Analysis						
ARO 1016	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
ARO 1221	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
ARO 1232	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
ARO 1242	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
ARO 1248	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
ARO 1254	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
ARO 1260	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
ARO 1262	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
ARO 1268	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
Total PCB	Not detected	ug/Kg	330	SW846 8082A	TP	01/10/2022
PCB soil extraction	Extracted			3510C/3545	MB	01/07/2022
%Solid	20	%		ASTM D2216	MH	01/10/2022

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

All soil results based on dry weight.

Sample does not meet method holding time requirement for PCB analysis.

Released by 
 Date 1/11/2022

RE: Emissions Test

79186B

From: Sreedhar Mullapudi (smullapudi@ycua.org)

To: bai-brighton@sbcglobal.net

Cc: hrahbarnoohi@ycua.org

Date: Friday, January 7, 2022, 09:43 AM EST

Bill

Sorry for the miscommunication. It was probably meant to indicate that these were composite samples. Is it possible to test again if you have samples. Thank you.

SREE MULLAPUDI, P.E. | Director Wastewater Operations/Compliance

Direct: 734-544-7121 | Main: 734-484-4600 | Fax: 734-544-7149

smullapudi@ycua.org

Ypsilanti Community Utilities Authority

2777 State Road | Ypsilanti, Michigan USA 48198-9112 | www.ycua.org

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From: Brighton Analytical <bai-brighton@sbcglobal.net>
Sent: Friday, January 7, 2022 8:47 AM
To: Sreedhar Mullapudi <SMullapudi@ycua.org>
Subject: Emissions Test

Sree

The special instructions on the bottom of the COC say to "composite samples.." so we did and tested comp.

Bill

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: TLP **Parameter:** PCB
Analysis Date: 1/10/2022 **Method Reference:** EPA 8082A
Matrix: Soil **Batch:** 01/10/22 MB

SPIKE - ACCURACY					
Laboratory ID	Spike Conc. (µg/mL)	Background (µg/mL)	% Recovery	Acceptable Range (%)	Method Blank Concentration
CQ01462					
DCB (Surrogate)	0.50	ND	93 / 87	50 - 130	95%
Aroclor 1260	1.0	ND	106 / 90	50 - 130	<330 µg/Kg
SPIKE - PRECISION					
Laboratory ID	Observed A (µg/mL)	Observed B (µg/mL)	RPD	Acceptable Range	LCS % Recovery
CQ01462					
DCB (Surrogate)	0.46	0.43	6.9	≤ 20%	90%
Aroclor 1260	1.06	0.90	16.2	≤ 20%	111%
MISCELLANEOUS					
	Standard ID #				
DCB (Surrogate)	#4186.2				
Aroclor 1260	#4210.1				

COMMENTS: _____