From: O"Connell, Morrighan
To: chad@wealingbros.com
Cc: Bruce McElheny
Subject: Cloverdale 000075 Renewal Review
Date: Tuesday, April 9, 2024 3:58:00 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png

Hi Chad,

I have reviewed the Cloverdale land application of biosolids permit renewal application. The following information is needed to complete my review:

1. The CF Environmental lab report provided states that the Mercury and PCB analysis was contracted out to Alloway labs. Please provide the Alloway wet weight lab report for Mercury and PCBs in addition to the dry weight report provided.

2. We've recently been given direction to address any laboratory reference methods used other than the methods outlined in 327 IAC 6.1-4-16. To use methods other than the methods listed in 327 IAC 6.1-4-16, we need to have a request for approval of equivalent methods on file.

   The analyses for total phosphorus and potassium appear to indicate that they were done using the SW846 6010D method instead of EPA-600/4-79-020 (365) for phosphorus and EPA-600/4-79-020 (200) for potassium. Ammonia Nitrogen was done using Standard Methods for the Examination of Water and Waste 4500-NH3BD instead of EPA-600/4-79-020 (350).

   Please confirm if you would like to request to use the methods SW846 6010D for total phosphorus and potassium and SM4500-NH3 BD for ammonia as N as equivalent methods.

3. A narrative description of the process as requested in Part III. was not provided. Please provide a written narrative that details the type of wastewater treatment process used (anaerobic, aerobic, other, etc.), the number/type/volume of all treatment and storage units (digestors, holding tanks, etc.), the flow of biosolids through all treatment and storage units, thickening decant points, and sampling points.

Please submit the above information within 30 days of the date of this e-mail. If you need additional time or have any questions, please let me know.

Thanks!
Morrighan

Indiana Department of
Environmental Management
Morrighan O'Connell
Environmental Manager II
Office of Land Quality - Solid Waste Permits
moconnel@idem.IN.gov (317) 232-3362

Protecting Hoosiers and Our Environment

| | | | | www.idem.IN.gov

From: Chad Wealing
To: O"Connell, Morrighan
Subject: Cloverdale
Date: Friday, May 3, 2024 11:17:53 AM
Attachments: Land applicaton narrative.docx

Thanks,
Chad Wealing

Sent from iPhone

The Cloverdale Wastewater Plant consists of a Class 2 .7 MGD extend aeration treatment facility. The facility consists of a mechanical screen with a bypass bar screen, an extended aeration tank with a pre-aeration chamber, two circular clarifiers, an aerobic digestor, chemical feed system for phosphorus removal, ultraviolet light disinfection, and diffused air post-aeration.

The 2 aeration tanks are 200,000 gallons each, 2 clarifiers at 150,000 gallon each, and 2 aerated holding tanks for the digestor at 150,000 gallon each. The Returned Activated Sludge is wasted to the aerated digestor and decanted when the level is high enough. The decant is sent back to the raw pumps and sent back through the treatment plant.

The flow at this plant is as described.

1. Raw comes in through the screen and to a raw lift station.
2. The raw lift station pumps to the aeration tank.
3. The aeration tank liquid is sent to the splitter box and chemical is added for phosphorus removal.
4. Aeration liquid is split to both clarifiers.
5. RAS is sent back to aeration and effluent is sent to UV and then discharged.
6. Daily RAS is sent to digestor, and the amount is based on 30 minute testing and suspended solids tests.

From: Chad Wealing
To: O"Connell, Morrighan
Subject: Cloverdale
Date: Friday, April 26, 2024 3:25:37 PM
Attachments: Wealing Copier_20240426_142903.pdf

See attached and also

Phoshporus: EPA 200.7
Potassium: EPA 200.7
Ammonia: SM4500-NH3 BD

We would like to request to use these methods in the permit application

I'm waiting on a more descriptive process from the operator. When I get that I'll forward to you.

Thanks,
Chad Wealing

Sent from iPhone

Final Analytical Report

CF Environmental Laboratory, LLC
3711 Vanguard Drive Suite D
Fort Wayne, IN 46809

Customer: Wealing Brothers LLC
4161 N 600 E
Fowler, IN 47944

Report Date: 9/20/2023

Date Received: 9/13/2023
Time Received: 10:53 AM

Laboratory ID: 073887
Project: Cloverdale
Sample Location: Cloverdale grab

Sampler: CW
Date Sampled: 9/12/2023

Parameter	Wet Weight Basis			Dry Weight Basis		*Table 1*	*Table 3*	Loading Rate		Analyst	Analysis Date	Method Reference
	Result	Units	LOQ	Result	Units	*mg/kg*	*mg/kg*	lbs/Wet Ton	lbs/Dry Ton			
Arsenic, Total	<0.011	mg/kg	*0.011*	**<1.04**	mg/kg	*75*	*41*	0.000022	0.002075	CSF	09/14/23	SW846 6010D
Cadmium, Total	0.013	mg/kg	*0.003*	**1.23**	mg/kg	*85*	*39*	0.000026	0.002453	CSF	09/14/23	SW846 6010D
Copper, Total	1.69	mg/kg	*0.006*	**159**	mg/kg	*4300*	*1500*	0.003380	0.318868	CSF	09/14/23	SW846 6010D
Lead, Total	0.095	mg/kg	*0.016*	**8.96**	mg/kg	*840*	*300*	0.000190	0.017925	CSF	09/14/23	SW846 6010D
Selenium, Total	<0.02	mg/kg	*0.020*	**<1.89**	mg/kg	*100*	*100*	0.000040	0.003774	CSF	09/14/23	SW846 6010D
Zinc, Total	7.96	mg/kg	*0.010*	**751**	mg/kg	*7500*	*2800*	0.015920	1.501887	CSF	09/14/23	SW846 6010D
Nickel, Total	0.20	mg/kg	*0.032*	**18.9**	mg/kg	*420*	*420*	0.000400	0.037736	CSF	09/14/23	SW846 6010D
Molybdenum, Total	0.066	mg/kg	*0.032*	**6.23**	mg/kg	*75*		0.000132	0.012453	CSF	09/14/23	SW846 6010D
Mercury, Total	<0.02	mg/kg	*0.020*	**<1.89**	mg/kg			0.000040	0.003774	ZDT-Alloway	09/19/23	SW846-7471A
PCBs, Total	<0.02	mg/kg	*0.020*	**<1.89**	mg/kg			0.000040	0.003774	AOP-Alloway	09/15/23	SW-8082A
Moisture, Percent	98.94	%	*0.1*							AMS	09/15/23	SM2540 G
Solids, Total (%)	1.06	%	*0.1*	**100**	%			21.2	2000	AMS	09/15/23	SM2540 G

The reported results relate only to the samples as they have been received by the laboratory. The analytical methods used conform to the current version of 40 CFR part 136.3 unless otherwise noted. All Standard Methods for the Examination of Water and Wastewater test procedures, are performed in accordance with the 22nd edition (2012). Upon receipt at the laboratory, all samples were stored at 6°C or below.

"<" = analyzed for but not detected at or above the reported limit
"N" = see case narrative
"Alloway" = contract laboratory

"LOQ" = Limit of Quantification
BDL = Below Detection Limit
Table 1 & 3 : mg/kg Dry Weight Basis

Approved By: Cindi Fuhrman
Cindi Fuhrman, General Manager

ANALYTICAL REPORT

Lab Project # 2334141

CF Environmental Laboratory
Attn: Cindi Fuhrman
3711 Vanguard Dr. Suite D
Fort Wayne, IN 46809

Received: 9/13/2023
Reported: 9/20/2023
Date/Time Sampled: 09/12/2023 16:00
Sampled By: Not provided
Sampled Matrix: Sludge
Containers: 1

Project Name: **Wealing Brothers**

Sample ID: **Cloverdale-8**

Lab Sample # **2334141-01**

Customer provided % solids result of 1.06 % for dry weight calculation

Analyte	Results	Units	PQL	Method	Analyst	Extraction Date	Analysis Date
Mercury, Total	<1.89	mg/Kg dry	1.89	SW-7471A	ZDT		09/19/2023
PCB-1016	<1.89	mg/Kg dry	1.89	SW-8082A	AOP	09/14/2023	09/15/2023
PCB-1221	<1.89	mg/Kg dry	1.89	SW-8082A	AOP	09/14/2023	09/15/2023
PCB-1232	<1.89	mg/Kg dry	1.89	SW-8082A	AOP	09/14/2023	09/15/2023
PCB-1242	<1.89	mg/Kg dry	1.89	SW-8082A	AOP	09/14/2023	09/15/2023
PCB-1248	<1.89	mg/Kg dry	1.89	SW-8082A	AOP	09/14/2023	09/15/2023
PCB-1254	<1.89	mg/Kg dry	1.89	SW-8082A	AOP	09/14/2023	09/15/2023
PCB-1260	<1.89	mg/Kg dry	1.89	SW-8082A	AOP	09/14/2023	09/15/2023
(Surrogate) TCMX	71.7 (20.6 - 180.3)	%		SW-8082A	AOP	09/14/2023	09/15/2023
(Surrogate) DCB	92.3 (49.8 - 163.6)	%		SW-8082A	AOP	09/14/2023	09/15/2023

Analysis Certified By: Lana L Jackson

Chain of Custody Record

Alloway — Your Resource for Defensible Data

This is a legal document that authorizes Alloway to perform testing on samples submitted under this agreement.

1101 North Cole Street, Lima, OH 45805
(P) 419-223-1362 (F) 419-227-3792

Project: 2334141

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6

Report To:
Name: Cindi Fuhrman
Company: CF Environmental Laboratory LLC
Address: 3711 Vangaurd Dr. Suite D
Fort Wayne, IN 46809

Invoice To (If Different):
Name:
Company:
Address:

Hg + PCB need a ZZ dry weight DL

Phone #: Fax #:
E-mail: PO#:

Project Name: Wealing Brothers
Sampler (Print) (Signature)

Turnaround: (*Rush Charges May Apply*)
Next Day ☐ 3 Working Days ☒ Routine ☐
2 Working Days ☐ 5 Working Days ☐

	Customer Sample ID / Sample Location	Sample Date	Sample Time	Composite	Grab	Matrix Code	Number of Containers	Preservation Code #	Analysis Required	Alloway LIMS # For Lab Use Only
1	Cloverdale 8	9/12/23	1600		X	Sg	1	1	PCB, Hg	2334141-01
2										
3										
4										
5										
6										
7										
8										

	Relinquished by:	Received by:	Date	Time
1				
2				
3				
4				
5				
6				

Received for Laboratory By: (circle one): Mansfield (Lima) Marion
(Signature) 9/13/23 1650

Method of Delivery: UPS ☐ Fed Ex ☐ Client ☒ Alloway Pick Up ☐ Alloway Sampling ☐ Other ☐

Matrix Codes:
ww - wastewater
gw - groundwater
dw - drinking water
sw - surface water
w - water
oil - oil
s - solid
sg - sludge
l - leachate
a - acid
p - product
o - other

Preservation Codes:
1 - None; 2 - HNO_3; 3 - H_2SO_4; 4 - HCl; 5 - NaOH; 6 - NaOH & Zinc Acetate; 7 - Sodium Thiosulfate; 8 - Ascorbic Acid; 9 - Maleic Acid; 10 - EDA; 11 - Ammonium Chloride; 12 - $(NH_4)_2SO_4$ & NH_4OH; 13 - Zinc Acetate; 14 - Sodium Sulfite; 15 - Potassium Dihydrogen Citrate; 16 - Sodium Sulfite/Sodium Bisulfate

Sample Receiving (For Lab Use Only)
Ice Present? Y ☒ N ☐
Proper Preservation? Y ☒ N ☐
Container Temperature: 0.6 °C T-184 ED

Transported to: Lima Marion By: Received By: Date: Time:

Transported to: Lima Marion By: Received By: Date: Time: