

April 12, 2016

Ms. Charlene Sauls; Regional Hydrogeologist
Pennsylvania Department of Environmental Protection
Bureau of Waste Management
909 Elmerton Avenue
Harrisburg, PA 17110-8200

REF: Private Water Supply
1st Quarter 2016 Form 52 Water Quality Analysis CWCGFELW
Frey Farm Landfill; BWM Permit #101389

Dear Ms. Sauls:

In accordance with the Municipal Waste Management Regulations, the Lancaster County Solid Waste Management Authority (LCSWMA) continues the above-referenced monitoring program.

Attached are the Forms 52, lab report, and excel csv file for your Landlinks Access database for location CWCGFELW (sample collected in March). MCL and SMCL exceedances are as follows:

1. USEPA MCL's exceedance report; one additional sample (CWCGFELW) exceeded the limit for nitrate, samples are consistent with historic data the cause is attributed to agricultural impacts. No other MCL's were exceeded.
2. USEPA SMCL's exceedance report; one additional sample CWCGFELW exceeded the limit for total dissolved solids. Samples are consistent with historic data and are attributed to the water treatment system natural soil and geologic conditions.

Ground water monitoring concentrations were consistent with historic data, no significant deviations were observed.

Please do not hesitate in contacting me if you have any questions or concerns at mreider@lcswma.org.

Respectfully submitted,



Mark D Reider
Environmental Manager

Enclosures

Cc Itr: Bob Zorbaugh, Dan Brown, Bob Eshbach
Ed Rawski, Randy Weiss (PaDEP)


 Date Prepared/Revised
 03/30/2016

DEP USE ONLY

Date Received

FORM 52

MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Creswell Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Creswell Landfill

County: Lancaster County

Township or Municipality: Manor Township

Landowner Name: HANS WEBER / DEB KALBACH

Address: 3088 River Road

Phone No.:

Sampling Point: Latitude: 39° 57' 21" Longitude: 76° 26' 7.1"

Depth to Water Level: _____ ft.

Measured from: Land Surface TOC

Casing Stick Up: _____ ft.

Elevation of Water Level: _____ ft./MSL

Total Well Depth: _____ ft.

Sampling Depth: _____ ft.

Sampling Method: Pumped BailedWell Purged: Yes No

Well Volumes Purged: _____

Sample Field Filtered (must be 0.45 micron): Yes No

Sample Date:(mm/dd/yy) 03/04/2016

Sample Collection Time: 8:13 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number)

34 Dogwood Lane

Middletown, PA 17057

(717) 944-5541

Lab Accreditation Number(s)

22-293

Lab Analysis Date

03/24/2016

Were any holding times exceeded?: Yes No If yes, please explain in comments field.

Comments:

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER / DEB KALBAC

Sample Date

03/04/2016

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	D6919-03
BICARBONATE	187	SM 2320 B
CALCIUM, TOTAL	0.06	EPA 200.7
CALCIUM, DISSOLVED	0.11	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	5 ND	EPA 410.4
CHLORIDE	189	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	0.05 ND	EPA 200.7
MAGNESIUM, DISSOLVED	0.1 ND	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	11.4	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER / DEB KALBAC

Sample Date

03/04/2016

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE-NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	7.32	FIELD
pH-LAB (SU)	7.4	SM 4500B
POTASSIUM, TOTAL	1.1	EPA 200.7
POTASSIUM, DISSOLVED	0.72	EPA 200.7
SODIUM, TOTAL	196	EPA 200.7
SODIUM, DISSOLVED	201	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	1016	FIELD
SPEC. COND., LAB (umhos/cm)	1030	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	187	SM 2320B
TDS (TOTAL DISSOLVED SOLIDS)	519	SM 2540C
TOC (TOTAL ORGANIC CARBON)	1 ND	SM 5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.1 ND	SM 2130B
TOTAL ORGANIC HALOGEN (ug/l)	20 ND	SW846 9020B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER / DEB KALBAC

Sample Date

03/04/2016

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE (EDB) (ETHYLENE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
cis 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
trans 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

March 25, 2016

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name: 2016-CONTIGUOUS	Workorder: 2128122
Purchase Order:	Workorder ID: 1ST QTR 2016-ACT 101

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Friday, March 4, 2016.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

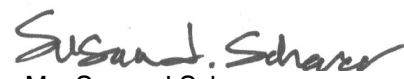
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Mark Reider , Mr. Hans Weber , Mr. Jeff Musser

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.



Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2128122 1ST QTR 2016-ACT 101

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2128122001	3088 River Road, Conestoga PA	Water	3/4/2016 08:13	3/4/2016 16:20	Mr. Brian G Shade

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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PROJECT SUMMARY

Workorder: 2128122 1ST QTR 2016-ACT 101

Sample Comments

Lab ID: 2128122001

Sample ID: 3088 River Road,
Conestoga PA

Sample Type: SAMPLE

The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO₃/L.

The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

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ANALYTICAL RESULTS

Workorder: 2128122 1ST QTR 2016-ACT 101

Lab ID: **2128122001** Date Collected: 3/4/2016 08:13 Matrix: Water
Sample ID: **3088 River Road, Conestoga PA** Date Received: 3/4/2016 16:20

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Benzene	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
Ethylbenzene	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
Methylene Chloride	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
Toluene	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
Total Xylenes	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
Trichloroethene	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2			3/8/16 14:58	DD	K
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	91.4		%	70 - 130	EPA 524.2			3/8/16 14:58	DD	K
4-Bromofluorobenzene (S)	99.6		%	70 - 130	EPA 524.2			3/8/16 14:58	DD	K
WET CHEMISTRY										
Alkalinity, Bicarbonate	187		mg/L	5	S2320B-97			3/5/16 13:18	MSA	A
Alkalinity, Total	187		mg/L	5	S2320B-97			3/5/16 13:18	MSA	A
Ammonia-N	ND		mg/L	0.100	D6919-09			3/13/16 05:25	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4			3/13/16 16:00	JAM	B
Chloride	189		mg/L	2.0	EPA 300.0			3/5/16 07:46	MBW	C
Fluoride	ND		mg/L	0.20	EPA 300.0			3/5/16 07:46	MBW	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B			3/14/16 11:09	PAG	I
Nitrate-N	11.4		mg/L	0.20	EPA 300.0			3/5/16 07:46	MBW	C
Nitrite-N	ND		mg/L	0.20	EPA 300.0			3/5/16 07:46	MBW	C
pH	7.40		pH_Units		S4500HB-00			3/5/16 13:18	MSA	A
Phenolics	ND		mg/L	0.005	EPA 420.4	3/20/16 21:00	NV	3/24/16 11:25	JLG	H
Specific Conductance	1030		umhos/cm	1	EPA 120.1			3/5/16 13:18	MSA	A
Sulfate	ND		mg/L	2.0	EPA 300.0			3/5/16 07:46	MBW	C
Total Dissolved Solids	519		mg/L	5	S2540C-11			3/10/16 13:18	ML	C

ALS Environmental Laboratory Locations Across North America

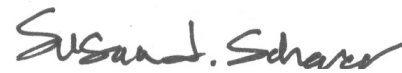
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ANALYTICAL RESULTS

Workorder: 2128122 1ST QTR 2016-ACT 101

Lab ID: **2128122001** Date Collected: 3/4/2016 08:13 Matrix: Water
Sample ID: **3088 River Road, Conestoga PA** Date Received: 3/4/2016 16:20

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00			3/8/16 18:17	PAG	F
Turbidity	ND		NTU	0.10	S2130B-01			3/4/16 23:44	MSA	C
METALS										
Calcium, Total	0.060		mg/L	0.050	EPA 200.7	3/7/16 07:35	JPS	3/8/16 10:13	TSS	D1
Calcium, Dissolved	0.11		mg/L	0.10	EPA 200.7	3/9/16 07:14	TSS	3/9/16 09:26	TSS	E1
Iron, Total	ND		mg/L	0.030	EPA 200.7	3/7/16 07:35	JPS	3/8/16 10:13	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	3/9/16 07:14	TSS	3/9/16 09:26	TSS	E1
Magnesium, Total	ND		mg/L	0.050	EPA 200.7	3/7/16 07:35	JPS	3/8/16 10:13	TSS	D1
Magnesium, Dissolved	ND		mg/L	0.10	EPA 200.7	3/9/16 07:14	TSS	3/9/16 09:26	TSS	E1
Manganese, Total	ND		mg/L	0.0025	EPA 200.7	3/7/16 07:35	JPS	3/8/16 10:13	TSS	D1
Manganese, Dissolved	ND		mg/L	0.0050	EPA 200.7	3/9/16 07:14	TSS	3/9/16 09:26	TSS	E1
Potassium, Total	1.1		mg/L	0.25	EPA 200.7	3/7/16 07:35	JPS	3/8/16 10:13	TSS	D1
Potassium, Dissolved	0.72		mg/L	0.50	EPA 200.7	3/9/16 07:14	TSS	3/9/16 09:26	TSS	E1
Sodium, Total	196		mg/L	0.25	EPA 200.7	3/7/16 07:35	JPS	3/8/16 10:13	TSS	D1
Sodium, Dissolved	201		mg/L	0.50	EPA 200.7	3/9/16 07:14	TSS	3/9/16 09:26	TSS	E1
FIELD PARAMETERS										
pH, Field (SM4500B)	7.32		pH_Units		Field			3/4/16 08:13	BGS	N
Specific Conductance, Field	1016		umhos/cm	1	Field			3/4/16 08:13	BGS	N
Temperature	17.50		Deg. C		Field			3/4/16 08:13	BGS	N



Ms. Susan J Scherer
Project Coordinator

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**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

Generated by ALS

Client Name: LCSWMA - Hans Weber and Deb Kalbach
Address: 3088 River Road
Conestoga, PA 17516

Contact: Hans Weber and Deb Kalbach
Phone#: (717) 419-7982

Project Name#: LCSWMA - Quarterly
Bill To: LCSWMA - Hans Weber and Deb Kalbach

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.

Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location
(as it will appear on the lab report)

Sample Date	Time	Matrix	TOC	TOX	O-OH	VOC	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Pb, SPC	Alkalinity, HCO3
3-4-16	0813	G DW	2	2	1	1	X	3	down 34			1

Project Comments:
Requisitioned By / Company Name: ALS
Date: 3-4-16
Time: 10:20
Received By / Company Name: [Signature]
Date: 3/4/16
Time: 10:20

LOGGED BY (signature): [Signature] 3/4/16 10:20
REVIEWED BY (signature): [Signature]

Container Type: 40 ml
Preservative: HCl
AN: 500 ml
H2SO4: HCl
AG: 40 ml
HCl: HCl
AN: 500 ml
H2SO4: HCl
PL: 500 ml
HNO3: HNO3
PL: 500 ml
HNO3: HNO3
PL: 2L
None: None

COOLERS: Y N
Cooler Temp: 4°C
Therm ID: 352

Special Processing:
 Standard
 CLP-like
 USACE
 Navy
 USACE

ALS Field Services:
 Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

State Samples Collected In:
NY
NJ
PA
NC

Sample Disposal:
Lab
Special

Reportable to PADEP?
Yes
PWSID #

EDDS: Format Type:

1 of 1
Receiving Lab

Courier/Tracking #:

Sample/COC Comments:

Custody Seats Present?
(If present) Seats Intact?
Received on ice?
COC Labels Complete/Accurate?
Cont. in Good Cond.?
Correct Containers?
Correct Sample Volumes?
Correct Preservation?
Headspaces/Volatilities?

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