

3800-FM-BCW0462 12/2016



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
DISCHARGE MONITORING REPORT (DMR)

NAME: SPRING HILL FARM WWTF ASSN
ADDRESS: PO BOX 766, CHADDS FORD PA, 19317-0622
FACILITY: SPRINGHILL FARM STP
LOCATION: 90 SPRINGHILL DRIVE, CHADDS FORD PA, 19342
STAGE: Final Effluent

PA0052230
PERMIT NUMBER

001
OUTFALL NUMBER

Reporting Frequency: Monthly
DMR Effective From: 12/01/2019
DMR Effective To: 12/31/2019
Permit Expires: 12/31/2020
Permit Application Due: 07/04/2020
No Discharge: ☐

MONITORING PERIOD							
YEAR				MO			
DAY				YEAR			
TO				MO			
2019				12			
01				2019			
				12			
				31			

PARAMETERS REPORTED VALUES

PARAMETER		QUANTITY OR LOADING			QUANTITY OR CONCENTRATION				SAMPLING FREQUENCY	SAMPLING TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS		
Dissolved Oxygen (00300)	Sample Measurement	***	***	***	6.9	***	***	mg/L	1/day	Grab
	Permit Requirement	***	***	***	5.0	Inst Min	***	***	1/day	Grab
pH (00400)	Sample Measurement	***	***	***	6.9	***	8.3	S U	1/day	Grab
	Permit Requirement	***	***	***	6.0	Inst Min	9.0	IMAX	1/day	Grab
Total Suspended Solids (00500)	Sample Measurement	3	***	lbs/day	***	6	***	mg/L	1/week	24-Hr Composite
	Permit Requirement	25	Avg Mo	***	***	30	Avg Mo	***	1/week	24-Hr Composite
Total Nitrogen (00500)	Sample Measurement	***	***	***	***	24.1	***	mg/L	1/week	24-Hr Composite
	Permit Requirement	***	***	***	***	Monitor & Report	Avg Mo	***	1/week	24-Hr Composite
Ammonia-Nitrogen (00610)	Sample Measurement	05	***	lbs/day	***	1	***	mg/L	1/week	24-Hr Composite
	Permit Requirement	5.0	Avg Mo	***	***	6.0	Avg Mo	***	1/week	24-Hr Composite
Total Phosphorus (00660)	Sample Measurement	2	***	lbs/day	***	.4	***	mg/L	1/week	24-Hr Composite
	Permit Requirement	1.7	Avg Mo	***	***	2.0	Avg Mo	***	1/week	24-Hr Composite
Flow (00000)	Sample Measurement	05636	07900	MGD	***	***	***	***	Continuous	Recorded
	Permit Requirement	Monitor & Report	Monitor & Report	Daily Max	***	***	***	***	Continuous	Recorded
Total Residual Chlorine (TRC) (00060)	Sample Measurement	***	***	***	***	.05	.10	mg/L	1/day	Grab
	Permit Requirement	***	***	***	***	06	.14	IMAX	1/day	Grab
Fecal Coliform (74050)	Sample Measurement	***	***	***	***	6	16	CFU/100 ml	1/week	Grab
	Permit Requirement	***	***	***	***	200	1000	IMAX	1/week	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5) (00092)	Sample Measurement	2	***	lbs/day	***	3	***	mg/L	1/week	24-Hr Composite
	Permit Requirement	21	Avg Mo	***	***	25	Avg Mo	***	1/week	24-Hr Composite
Facility Sampling Point Comments										

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ATTACHMENT DETAILS

File Name	Attachment Type	Uploaded Time	Attachment Comments
Springhill DMR lab accred December 2019.doc	Laboratory Accreditation Form	2020-01-07T13:24:12-05:00	
Springhill Lab Analytical Report 12-26-19.pdf	Laboratory Analytical Report	2020-01-10T09:35:39-05:00	
Springhill Farm Supp S form December 2018.xls	Daily Effluent Monitoring Form	2020-01-10T09:30:06-05:00	
Springhill DEP Cover Ltr. December 2019.doc	Cover Letter	2020-01-10T09:28:52-05:00	
Springhill Farm Solids Disposal Form December 2019.xls	Sewage Sludge / Biosolids Production and Disposal Form	2020-01-10T09:31:27-05:00	
Springhill Lab Analytical Report 12-31-19.pdf	Laboratory Analytical Report	2020-01-10T09:33:05-05:00	
Springhill Lab Analytical Report 12-4-19.pdf	Laboratory Analytical Report	2020-01-10T09:33:53-05:00	
Springhill Lab Analytical Report 12-11-19.pdf	Laboratory Analytical Report	2020-01-10T09:34:49-05:00	
Springhill Farm Influent and Process Control Form December 2019.xls	Influent and Process Control Form	2020-01-07T13:25:06-05:00	

PERMIT VIOLATIONS

Non-Compliance ID	Event Start Date	Event End Date	Parameter	Limit Type	Reported Value	Permit Limit	Unit	Sampling Point	Cause Of Non-Compliance	Corrective Action	Comments
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UNAUTHORIZED DISCHARGES

Non-Compliance ID	Event Start Date	Event End Date	Date and Time Discovered	Substance Discharged	Event Location	Volume (gal)	Duration (hrs)	Receiving Waters	Impact On Waters	Cause Of Discharge	Date and Time DEP Notified Orally	Comments
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OTHER PERMIT VIOLATIONS

Non-Compliance ID	Non-Compliance Type	Sampling Point	Parameter	Reported Value	Permit Limit	Comments
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COMMENT DETAILS

Comments	Operator Name	Operator Certification Number	Operator Contact Number
	Stanley J Gober	T 1538	(484)-844-2175

SUBMISSION INFORMATION

SUBMITTED BY GREENPORT USER	*Pursuant to the Pennsylvania Electronic Transactions Act - Act 69, effective January 15, 2002, you are about to engage in an electronic transaction with the Commonwealth of Pennsylvania. You are submitting official information. You certify under penalty of law that this document and all attachments were prepared under your direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on your inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of your knowledge and belief, true, accurate and complete. You are aware that any false statement may be subject to substantial civil and criminal penalties, including 18 P.S. section 4904 (relating to unsworn falsification to authorities).	Stan Gober	TELEPHONE		DATE		
			(484)	844-2175	2020	1	10
gobers		SUBMITTED BY FULL NAME	AREA CODE	NUMBER	YEAR	MO	DAY

DISCHARGE MONITORING REPORT - SUPPLEMENTAL FORM (S)

Month:

November-19

Springhill Farm Wastewater Treatment Facility Association

Springhill Drive

NPDES permit PA 0052230

Glenn Mills, PA 19342

This permit will EXPIRE on December 31, 2020

Influent		Effluent																				
Date	BOD5 mg/l	TSS mg/l	cBOD5 mg/l	cBOD5 lbs.	TSS mg/l	TSS lbs.	NH3 mg/l	NH3 lbs.			Phos. mg/l	Phos. lbs.	Fecal 100 ml	TN mg/L	Cu mg/L	TDS mg/L	pH SU	INST TRC mg/l	AVG TRC mg/l	D.O. mg/l	Eff. Flow MGD	Rainfall Inches
1																	7.0	0.05	0.05	6.9	0.06410	0.1
2																	7.2	0.02	0.02	7.5	0.04220	0.0
3																	7.0	0.05	0.05	8.6	0.04670	0.8
4			3	2	7	5	0.1	0.06			0.3	0.20	16	24.8			7.4	0.10	0.09	7.4	0.07420	0.2
5																	6.9	0.07	0.07	8.6	0.05150	0.0
6																	7.3	0.10	0.08	9.4	0.05330	0.0
7																	6.9	0.05	0.05	8.3	0.05440	0.0
8																	7.1	0.06	0.06	9.7	0.05760	0.1
9																	7.1	0.03	0.03	9.7	0.06620	1.4
10																	7.2	0.05	0.05	9.6	0.04540	1.6
11			2	1	5	3	0.1	0.05			0.27	0.14	7	21.0			7.4	0.10	0.10	7.6	0.06200	0.0
12																	7.2	0.06	0.06	8.9	0.04490	0.0
13																	8.3	0.06	0.06	8.3	0.05710	0.6
14																	7.4	0.06	0.06	8.8	0.05800	0.0
15																	7.2	0.05	0.05	7.5	0.06930	0.0
16																	7.4	0.03	0.03	7.9	0.06880	1.5
17																	7.3	0.06	0.06	9.5	0.04490	0.0
18	365	179	3	2	4	2	0.1	0.05			0.3	0.17	3	19.0			7.1	0.07	0.07	8.5	0.06040	0.0
19																	7.0	0.10	0.06	9.6	0.05900	0.0
20																	7.3	0.10	0.07	9.0	0.06200	0.0
21																	7.0	0.09	0.09	8.5	0.07200	0.0
22																	7.5	0.06	0.06	8.6	0.05890	0.0
23																	7.3	0.07	0.07	9.0	0.05450	0.0
24																	7.1	0.04	0.04	9.3	0.04720	0.0
25																	7.0	0.02	0.02	7.8	0.04570	0.0
26			5	2	7	3	0.1	0.05			0.4	0.17	3	24.7			7.1	0.01	0.01	8.6	0.05760	0.0
27																	6.9	0.02	0.02	8.6	0.05600	0.0
28																	7.0	0.03	0.03	8.4	0.05130	0.0
29																	7.3	0.03	0.03	8.5	0.05680	1.0
30																	6.9	0.05	0.05	8.0	0.03620	0.3
31			4	3	6	4	0.1	0.05			0.8	0.51	8	31.2			7.1	0.04	0.04	8.5	0.07900	0.0
Min																	6.9			6.9		
Max													16				8.3	0.10			0.07900	
Avg:			3	2	6	3	0.1	0.05	#DIV/0!	#DIV/0!	0.4	0.2	6	24.1	#DIV/0!	#DIV/0!			0.05		0.05636	

LAB DELCORA Central La In-house? Yes* pH, O.O., & TRC

Telephone 610-876-5523

Fecal coliform is geometric mean



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

SUPPLEMENTAL LABORATORY ACCREDITATION FORM¹

Permittee Name: <u>Springhill Farm Wastewater Treatment Facility Association</u>							
Address: <u>Springhill Drive</u> <u>Glen Mills, PA 19342</u>							
PERMIT NUMBER				MONITORING PERIOD Year/Month/Day			
PA0052230				19	12	01	TO 19 12 31
PARAMETER	ANALYSIS METHOD	LAB NAME		LAB ID NUMBER²			
cBOD5	S5210B-11	DELCORA		23-00671			
TSS	S2540D-11	DELCORA		23-00671			
Fecal Coliform	Colilert18/Quantitray	DELCORA		23-00671			
Ammonia Nitrogen	EPA -350.1/ASTM D6919-03	DELCORA/ MJ Reider		23-00671/ 06-00003			
TDS	S2540C-11	DELCORA		23-00671			
Total Phosphorous	SM-4500-P-E	DELCORA/ MJ Reider		23-00671/ 06-00003			
Dissolved Oxygen	Meter	DELCORA- Operations Meter		23-00671			
TRC & pH	Meter	DELCORA- Operations Meter		23-00671			
TKN	HACH 10242/EPA 351.2	DELCORA/ MJ Reider		23-00671/ 06-00003			
Total Copper	EPA 200.7	MJ Reider		06-00003			
Total Nitrogen	Calculation	DELCORA		23-00671			
Nitrite + Nitrate	HACH 10206/SM4500-H+B	DELCORA/ MJ Reider		23-00671/ 06-00003			

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name/Title Principal Executive Officer
Phone: 610-876-5523
**Signature of Principal Executive Officer or
Authorized Agent**
Michael J. DiSantis, Dir. of O&M
Date: 1/3/2020

¹ Submit this form with each Discharge Monitoring Report (DMR), Annual Report or Recordkeeping and Reporting Form, where sample results are submitted to the Department for compliance purposes.

² For parameter(s) covered under accreditation-by-rule, submit the lab's registration number in lieu of an accreditation number.



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TDS	S2540C-11	DELCORA		23-00671			
Total Phosphorous	SM-4500-P-E	DELCORA/ MJ Reider		23-00671/ 06-00003			
Dissolved Oxygen	Meter	DELCORA- Operations Meter		23-00671			
TRC & pH	Meter	DELCORA- Operations Meter		23-00671			
TKN	HACH 10242/EPA 351.2	DELCORA/ MJ Reider		23-00671/ 06-00003			
Total Copper	EPA 200.7	MJ Reider		06-00003			
Total Nitrogen	Calculation	DELCORA		23-00671			
Nitrite + Nitrate	HACH 10206/SM4500-H+B	DELCORA/ MJ Reider		23-00671/ 06-00003			

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**Signature of Principal Executive Officer or
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Michael J. DiSantis, Dir. of O&M
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¹ Submit this form with each Discharge Monitoring Report (DMR), Annual Report or Recordkeeping and Reporting Form, where sample results are submitted to the Department for compliance purposes.

² For parameter(s) covered under accreditation-by-rule, submit the lab's registration number in lieu of an accreditation number.



SUPPLEMENTAL REPORT SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name:
Municipality:
Watershed:

Spring Hill Farm STP
Chadds Ford Township
3-G

County: Delaware

Month: **December** Year: **2019**
 NPDES Permit No.: **PA0052230**
 Renewal application due **180 days** prior to expiration
 This permit will expire on: **December 31, 2020**

SEWAGE SLUDGE / BIOSOLIDS PRODUCTION INFORMATION (Identify each off-site removal event and incineration event)

☐ Check here if there were no off-site removal events during the month

[illegible]**TOTAL:****TOTAL:**

TOTAL:

SEWAGE SLUDGE / BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where biosolids or ash were disposed or land applied)

Site Name	DELCORA STP	Goose Creek WWTP
Municipality	Chester City	Borough of West Chester
County	Delaware	Chester
DEP Permit No.	PA0027103	PA0027031
Type of Material*	liquid	
Dry Tons Applied/Disposed		
Type of Disposal/Use*	Incineration	Haul Liquid
Heater Name	McGovern	McGovern

* See Instructions for explanation.

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: **Michael J. DiSantis**
 Title: **Dir. of Operations and Maintenance**

License No.: T0403
Date: January 3, 2020



SUPPLEMENTAL REPORT - INFLUENT & PROCESS CONTROL

Facility Name: Springhill Farm STP Month: December Year: 2019
Municipality: Chadds Ford Township NPDES Permit No.: PA0052230
Watershed: 3-G County: Delaware Renewal application due 180 days prior to expiration.
This permit will expire on: December 31, 2020

Influent					Process Control			
Day	Flow (MGD)	BOD ₅ (mg/l)	BOD ₅ (lbs)	TSS (mg/l)	TSS (lbs)	Aeration MLSS (mg/l)	Aeration DO (mg/l)	Sludge Wasted (gallons)
1	0.0641						5.4	1,500.0
2	0.0422					2,240.0	5.9	1,500.0
3	0.0467						5.9	1,500.0
4	0.0747					2,510.0	5.0	2,250.0
5	0.0519						4.0	2,250.0
6	0.0533						5.5	1,950.0
7	0.0544					2,330.0	4.9	1,050.0
8	0.0576						4.5	2,250.0
9	0.0662					2,740.0	2.8	2,250.0
10	0.0454						4.9	2,250.0
11	0.062					2,990.0	4.3	2,250.0
12	0.0449						5.5	2,250.0
13	0.0571						6.5	4,500.0
14	0.058					3,010.0	5.9	4,500.0
15	0.0593						5.2	4,500.0
16	0.0688					2,190.0	5.3	2,250.0
17	0.0449						6.8	1,500.0
18	0.0604	365.0	184	179.0	90	2,860.0	5.8	450.0
19	0.059						5.9	2,250.0
20	0.062						4.7	2,250.0
21	0.072					2,720.0	3.9	2,250.0
22	0.0589						2.8	2,250.0
23	0.0545					2,630.0	4.3	2,250.0
24	0.0472						3.4	2,025.0
25	0.0457					2,890.0	4.3	2,250.0
26	0.0576						4.8	2,250.0
27	0.056						5.1	2,250.0
28	0.0513					2,730.0	4.3	2,625.0
29	0.0568						4.7	2,250.0
30	0.0362					2,910.0	5.0	2,250.0
31	0.079						5.1	2,250.0
Avg	0.056	365	184	179	90	2,673	5	2,269
Max	0.079	365	184	179	90	3,010	7	4,500

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Michael J. DiSantis
Title: Dir. of Operations and Maintenance

License No.: T0403
Date: 1/3/2020



M.J. Reider Associates, Inc.

ENVIRONMENTAL TESTING LABORATORY
U.S. EPA/PA DEP #06-00003

Certificate of Analysis

Laboratory No.: 9043053

Report: 01/06/20

Lab Contact: Bradley T Griffiths

Attention: Michael Krause

Reported To: DELCORA

P.O. Box 999

Chester, PA 19016

Project Info: Springhill Farm EFF (Weekly)

Lab ID: 9043053-01

Collected By: Client

Sampled: 12/31/19 07:00

Received: 12/31/19 12:15

Sample Desc: Springhill Effluent

Sample Type: Composite

	Result	Unit	Rep. Limit	Analysis Method	Analyzed	Notes	Analyst
General Chemistry							
Ammonia as N	<0.10	mg/l	0.10	ASTM D6919-03	01/02/20		APR
Nitrate as N	29.2	mg/l	1.00	EPA 300.0 Rev 2.1	12/31/19 13:08		MRW
Nitrite as N	<0.10	mg/l	0.10	EPA 300.0 Rev 2.1	12/31/19 13:08		MRW
Nitrogen, Total Kjeldahl (TKN)	1.90	mg/l	0.50	EPA 351.2	01/02/20		SNF
Nitrogen, Total	<31.20	mg/l	1.60	CALCULATED	01/02/20 14:36		SNF
Phosphorus as P, Total	0.78	mg/l	0.05	SM 4500-P E	01/02/20		WKH

Preparation Methods

Specific Method	Preparation Method	Prep Batch	Prepared Date	Prepared By
9043053-01				
General Chemistry				
SM 4500-P E	SM 4500-P B	B0A0044	01/02/2020	WKH



107 Angelica Street • Reading, PA 19611 • www.mjreider.com • (610) 374-5129 • fax (610) 374-7234

This certificate shall not be reproduced except in full without the written approval of M.J. Reider Associates, Inc.

NELAP accredited by PA. (PADEP #06-00003) Visit our website to view our current

NELAC accreditations for various drinking water, wastewater and solid & chemical materials analytes.

Additional accreditations by CT (PH-0210), MD (261), NY(12094)

**M.J. Reider Associates, Inc.**107 Angelica St, Reading PA, 19611
610-374-5129 www.mjreider.com

Client Code: 2639

Project Manager: Bradley T Griffiths

Report To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

Invoice To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

**WORK ORDER
Chain of Custody**

Client: DELCORA

Project: Springhill Farm EFF (Weekly)

9043053Project Notes: Mike Krause - Office (610) 876-5523 x 218 -
Cell (610) 633-4002Collected By :
(Full Name)Delcora

Comments: _____

9043053-01 Springhill EffluentTotal Nitrogen(TKN, NO₂-N, NO₃-N), NO₂-N EPA 300.0, NO₃-N EPA 300.0
NH₃-N D6919-03, PO₄ (Hach Tubes) SM 4500P-E, TKN EPA 351.2Matrix: Non-Potable Water
Type: Composite (Simple)Date: 12-31-19
Time: 7:00A - PI 500ml H₂SO₄
B - PI 250ml NPRelinquished By: Mike Segerson Date/Time: 12-31-19 Received By: [Signature] Date/Time: 12/31/19 1010

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____ Received at Laboratory By: [Signature] Date/Time: 12/31/19 1215

The Client, by signing (or having the client's agent sign), agrees to MIRA's Terms and Conditions and to pay for the above requested services including any additional associated fees incurred.

Page 1 of 1

Printed: 12/10/2019 2:43:36PM

Sample Kit Prepared By:	Date/Time
Sample Temp (°C):	<u>1</u>
Samples on Ice?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA
Approved By:	<u>[Signature]</u>
Entered By:	<u>[Signature]</u>

Report Template:

Page 2 of 3

M.J. Reider Associates, Inc.**MJRA Terms & Conditions**

All samples submitted must be accompanied by signed documentation representing a Chain of Custody (COC). The COC Record acts as a contract between the client and MJRA. Signing the COC form gives approval for MJRA to perform the requested analyses and is an agreement to pay for the cost of such analyses. COC Records must be completed in black or blue indelible ink (must not run when wet). COC documentation begins at the time of sample collection. Client is required to document all sample details prior to releasing samples to MJRA. All samples must be placed on ice immediately after sampling and shipped or delivered to the laboratory in a manner that will maintain the sample temperature above freezing and below 6C (loose ice is preferred).

Sample Submission, Sample Acceptance & Sampling Containers

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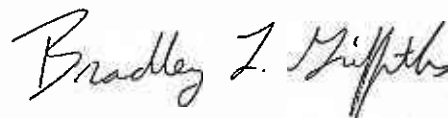
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Warranty & Litigation

MJRA does not guarantee any results of its services but has agreed to use its best efforts, in accordance with the standards and practices of the industry, to cause such results to be accurate and complete. We disclaim any other warranties, expressed or implied, including a warranty of fitness for a particular purpose and warranty of merchantability. Clients agree that they shall reimburse MJRA for any and all fees, cost and litigation expenses, including reasonable attorney fees incurred by MJRA in obtaining payment for the services rendered. All costs associated with compliance with any subpoena for documents, testimony, or any other purpose relating to work performed by MJRA, for a client, shall be paid by that client. MJRA's aggregate liability for negligent acts and omissions and of an intentional breach by MJRA will not exceed the fee paid for the services. Client agrees to indemnify and hold MJRA harmless for any and all liabilities in excess of said amount. Neither MJRA nor the client shall be liable to the other for special, incidental consequential or punitive liability or damages included but not limited to those arising from delay, loss of use, loss of profits or revenues. MJRA will not be liable to the client unless the client has notified MJRA of the discovery of the alleged negligent act, error, omissions or breach within 30 days of the

Reviewed and Approved by:

Bradley T. Griffiths
Project Manager

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Additional accreditations by CT (P11-0210), MD (261), NY(12094)

**M.J. Reider Associates, Inc.**ENVIRONMENTAL TESTING LABORATORY
U.S. EPA/PA DEP #06-00003**Certificate of Analysis****Laboratory No.:** 9039254**Report:** 12/10/19**Lab Contact:** Bradley T Griffiths**Attention:** Michael Signore
Reported To: DELCORA
P.O. Box 999
Chester, PA 19016**Project Info:** Springhill Farm EFF (Weekly)**Lab ID:** 9039254-01 **Collected By:** Client
Sample Desc: Springhill Effluent**Sampled:** 12/04/19 07:50 **Received:** 12/04/19 14:39
Sample Type: Composite

	Result	Unit	Rep. Limit	Analysis Method	Analyzed	Notes	Analyst
General Chemistry							
Ammonia as N	<0.10	mg/l	0.10	ASTM D6919-03	12/05/19		MRW
Nitrate as N	23.4	mg/l	10.0	EPA 300.0 Rev 2.1	12/04/19 20:57		MRW
Nitrite as N	<0.20	mg/l	0.20	EPA 300.0 Rev 2.1	12/04/19 20:40		MRW
Nitrogen, Total Kjeldahl (TKN)	1.16	mg/l	0.50	EPA 351.2	12/06/19		SNF
Nitrogen, Total	<24.76	mg/l	10.7	CALCULATED	12/06/19 11:49		MRW
Phosphorus as P, Total	0.32	mg/l	0.05	SM 4500-P E	12/06/19		WKH

Preparation Methods

Specific Method	Preparation Method	Prep Batch	Prepared Date	Prepared By
9039254-01				
General Chemistry				
SM 4500-P E	SM 4500-P B	B9I.0351	12/06/2019	WKH

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610-374-5129 www.mjreider.com

WORK ORDER
Chain of Custody

9039254



Client Code: 2639

Client: DELCORA

Project Manager: Bradley T Griffiths

Project: Springhill Farm EFF (Weekly)

Report To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

Invoice To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

Project Notes: Mike Krause - Office (610) 876-5523 x 218 --
Cell (610) 633-4002

Collected By :
(Full Name)

Delcory

Comments:

9039254-01 Springhill Effluent

Total Nitrogen(TKN, NO₂-N, NO₃-N), NO₂-N EPA 300.0, NO₃-N EPA 300.0
NH₃-N D6919-03, PO₄ (Hach Tubes) SM 4500P-E, TKN EPA 351.2

Matrix: Non-Potable Water
Type: Composite (Simple)

Date: 12-4-19
Time: 07150

A - PI 500ml H2SO4
B - PI 250ml NP

Relinquished By: <u>Matthew Sygm</u>	Date/Time: <u>12-4-19</u>	Received By: <u>B</u>	Date/Time: <u>12-4-19 1020</u>
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By: <u>M</u>	Date/Time: <u>12-4-19 1439</u>
Relinquished By:	Date/Time:	Received at Laboratory By:	Date/Time:

The Client, by signing (or having the client's agent sign), agrees to MJRA's Terms and Conditions and to pay for the above requested services including any additional associated fees incurred.

Page 1 of 1

Printed: 11/6/2019 2:51:34PM

Sample Kit Prepared By:	Date/Time
Sample Temp (°C):	<u>2</u>
Samples on Ice?	<u>No</u> NA
Approved By:	<u>[Signature]</u>
Entered By:	<u>[Signature]</u>

Report Template: wk

Page 2 of 3

M.J. Reider Associates, Inc.

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Bradley T Griffiths
Project Manager



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Additional accreditations by CT (P11-0210), MD (261), NY(12094)

**M.J. Reider Associates, Inc.**ENVIRONMENTAL TESTING LABORATORY
U.S. EPA/PA DEP #06-00003**Certificate of Analysis****Laboratory No.:** 9041615**Report:** 12/18/19**Lab Contact:** Bradley T Griffiths**Attention:** Michael Signore
Reported To: DELCORA
P.O. Box 999
Chester, PA 19016**Project Info:** Springhill Farm EFF (Weekly)**Lab ID:** 9041615-01 **Collected By:** Client
Sample Desc: Springhill Effluent**Sampled:** 12/11/19 08:00 **Received:** 12/11/19 14:05
Sample Type: Composite

	Result	Unit	Rep. Limit	Analysis Method	Analyzed	Notes	Analyst
General Chemistry							
Ammonia as N	<0.10	mg/l	0.10	ASTM D6919-03	12/12/19		APR
Nitrate as N	19.5	mg/l	10.0	EPA 300.0 Rev 2.1	12/11/19 23:55		MRW
Nitrite as N	<0.20	mg/l	0.20	EPA 300.0 Rev 2.1	12/11/19 23:38		MRW
Nitrogen, Total Kjeldahl (TKN)	1.25	mg/l	0.50	EPA 351.2	12/13/19		SNF
Nitrogen, Total	<20.95	mg/l	10.7	CALCULATED	12/13/19 9:49		MRW
Phosphorus as P, Total	0.27	mg/l	0.05	SM 4500-P E	12/13/19		WKH

Preparation Methods

Specific Method	Preparation Method	Prep Batch	Prepared Date	Prepared By
9041615-01				
General Chemistry				
SM 4500-P E	SM 4500-P B	B9L0714	12/13/2019	WKH

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**M.J. Reider Associates, Inc.**107 Angelica St, Reading PA, 19611
610-374-5129 www.mjreider.com**WORK ORDER
Chain of Custody****9041615**

Client Code: 2639

Project Manager: Bradley T Griffiths

Report To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

Invoice To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

Client: DELCORA

Project: Springhill Farm EFF (Weekly)

Project Notes: Mike Krause - Office (610) 876-5523 x 218 --
Cell (610) 633-4002

Comments: _____

Collected By: Delcora
(Full Name)**9041615-01 Springhill Effluent**Total Nitrogen(TKN, NO₂-N, NO₃-N), NO₂-N EPA 300.0, NO₃-N EPA 300.0
NH₃-N D6919-03, PO₄ (Hach Tubes) SM 4500P-E, TKN EPA 351.2

Matrix: Non-Potable Water

Type: Composite (Simple)

A - P1 500ml H₂SO₄

B - P1 250ml NP

Date: 12-11-19
Time: 0800

Relinquished By

Date/Time

Received By

Date/Time

Relinquished By

Date/Time

Received By

Date/Time

Relinquished By

Date/Time

Received at Laboratory By

Date/Time

The Client, by signing (or having the client's agent sign), agrees to MJRA's Terms and Conditions and to pay for the above requested services including any additional associated fees incurred.

Page 1 of 1

Printed: 11/26/2019 1:06:04PM

Sample Kit Prepared By:	Date/Time
Sample Temp (°C):	<u>1</u>
Samples on Ice?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA
Approved By:	<u>mmB</u>
Entered By:	

Page 2 of 3

Report Template: wkf WORKORDER-001-15

M.J. Reider Associates, Inc.

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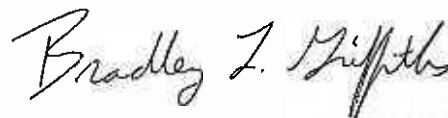
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Reviewed and Approved by:

Bradley T Griffiths
Project Manager107 Angelica Street • Reading, PA 19611 • www.mjreider.com • (610) 374-5129 • fax (610) 374-7234

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Certificate of Analysis

M.J. Reider Associates, Inc.

ENVIRONMENTAL TESTING LABORATORY
U.S. EPA/PA DEP #06-00003

Laboratory No.: 9042146

Report: 12/26/19

Lab Contact: Bradley T Griffiths

Attention: Michael Signore
Reported To: DELCORA
P.O. Box 999
Chester, PA 19016

Project Info: Springhill Farm EFF (Weekly)

Lab ID: 9042146-01 **Collected By:** Client
Sample Desc: Springhill Effluent

Sampled: 12/18/19 07:30 **Received:** 12/18/19 14:45
Sample Type: Composite

	Result	Unit	Rep. Limit	Analysis Method	Analyzed	Notes	Analyst
General Chemistry							
Ammonia as N	<0.10	mg/l	0.10	ASTM D6919-03	12/19/19		APR
Nitrate as N	18.3	mg/l	10.0	EPA 300.0 Rev 2.1	12/18/19 22:29		MRW
Nitrite as N	<0.20	mg/l	0.20	EPA 300.0 Rev 2.1	12/18/19 22:13		MRW
Nitrogen, Total Kjeldahl (TKN)	<0.50	mg/l	0.50	EPA 351.2	12/19/19		SNF
Nitrogen, Total	<19.00	mg/l	10.7	CALCULATED	12/19/19 15:44		MRW
Phosphorus as P, Total	0.34	mg/l	0.05	SM 4500-P E	12/23/19		WKH

Preparation Methods

Specific Method	Preparation Method	Prep Batch	Prepared Date	Prepared By
9042146-01				
General Chemistry				
SM 4500-P E	SM 4500-P B	B9L1227	12/23/2019	WKH



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**M.J. Reider Associates, Inc.**107 Angelica St, Reading PA, 19611
610-374-5129 www.mjreider.com**WORK ORDER
Chain of Custody****9042146**

Client Code: 2639

Client: DELCORA

Project Manager: Bradley T Griffiths

Project: Springhill Farm EFF (Weekly)

Report To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

Project Notes: Mike Krause - Office (610) 876-5523 x 218 --
Cell (610) 633-4002

Invoice To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

Collected By:

Delcora

Comments: _____

9042146-01 Springhill EffluentTotal Nitrogen(TKN, NO₂-N, NO₃-N), NO₂-N EPA 300.0, NO₃-N EPA 300.0
NH₃-N D6919-03, PO₄ (Hach Tubes) SM 4500P-E, TKN EPA 351.2

Matrix: Non-Potable Water

Date: 12-18-19

Type: Composite (Simple)

Time: 0730A - Pl 500ml H₂SO₄

B - Pl 250ml NP

Relinquished By: <u>Marta Lopez</u>	Date/Time: <u>12-18-19</u>	Received By: <u>V. Bary</u>	Date/Time: <u>12/18/19 1055</u>
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received at Laboratory By: <u>V. Bary</u>	Date/Time: <u>12/18/19 1445</u>

The Client, by signing (or having the client's agent sign), agrees to MJA's Terms and Conditions and to pay for the above requested services including any additional associated fees incurred.

Page 1 of 1

Printed: 12/3/2019 1:53:00PM

Sample Kit Prepared By:	Date/Time
Sample Temp (°C):	<u>1</u>
Samples on Ice?	<input checked="" type="radio"/> No <input type="radio"/> NA
Approved By:	<u>V. Bary</u>
Entered By:	<u>MB</u>

Report Template: W4

Page 2 of 3



M.J. Reider Associates, Inc.

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Warranty & Litigation

MJRA does not guarantee any results of its services but has agreed to use its best efforts, in accordance with the standards and practices of the industry, to cause such results to be accurate and complete. We disclaim any other warranties, expressed or implied, including a warranty of fitness for a particular purpose and warranty of merchantability. Clients agree that they shall reimburse MJRA for any and all fees, cost and litigation expenses, including reasonable attorney fees incurred by MJRA in obtaining payment for the services rendered. All costs associated with compliance with any subpoena for documents, testimony, or any other purpose relating to work performed by MJRA, for a client, shall be paid by that client. MJRA's aggregate liability for negligent acts and omissions and of an intentional breach by MJRA will not exceed the fee paid for the services. Client agrees to indemnify and hold MJRA harmless for any and all liabilities in excess of said amount. Neither MJRA nor the client shall be liable to the other for special, incidental consequential or punitive liability or damages included but not limited to those arising from delay, loss of use, loss of profits or revenues. MJRA will not be liable to the client unless the client has notified MJRA of the discovery of the alleged negligent act, error, omissions or breach within 30 days of the

Reviewed and Approved by:

Twila E. Dixon For Bradley T Griffiths
Project Manager



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Additional accreditations by CT (PH-0210), MD (261), NY(12094)

**M.J. Reider Associates, Inc.**ENVIRONMENTAL TESTING LABORATORY
U.S. EPA/PA DEP #06-00003**Certificate of Analysis****Laboratory No.:** 9043857**Report:** 01/02/20**Lab Contact:** Bradley T Griffiths**Attention:** Michael Krause
Reported To: DELCORA
P.O. Box 999
Chester, PA 19016**Project Info:** Springhill Farm EFF (Weekly)**Lab ID:** 9043857-01 **Collected By:** Client
Sample Desc: Springhill Effluent**Sampled:** 12/26/19 07:35 **Received:** 12/26/19 13:20
Sample Type: Composite

	Result	Unit	Rep. Limit	Analysis Method	Analyzed	Notes	Analyst
General Chemistry							
Ammonia as N	<0.10	mg/l	0.10	ASTM D6919-03	12/27/19		APR
Nitrate as N	23.8	mg/l	1.00	EPA 300.0 Rev 2.1	12/26/19 18:47		JAF
Nitrite as N	<0.10	mg/l	0.10	EPA 300.0 Rev 2.1	12/26/19 18:47		JAF
Nitrogen, Total Kjeldahl (TKN)	0.81	mg/l	0.50	EPA 351.2	12/31/19		SNF
Nitrogen, Total	<24.71	mg/l	1.60	CALCULATED	12/31/19 11:19		SNF
Phosphorus as P, Total	0.35	mg/l	0.05	SM 4500-P E	12/30/19		RCE

Preparation Methods

Specific Method	Preparation Method	Prep Batch	Prepared Date	Prepared By
9043857-01				
General Chemistry				
SM 4500-P E	SM 4500-P B	B9L1512	12/30/2019	RCE

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**M.J. Reider Associates, Inc.**107 Angelica St, Reading PA, 19611
610-374-5129 www.mjreider.com

Client Code: 2639

Project Manager: Bradley T Griffiths

Report To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

Invoice To: DELCORA - Michael Krause - P.O. Box 999, Chester, PA 19016

**WORK ORDER
Chain of Custody**

Client: DELCORA

Project: Springhill Farm EFF (Weekly)

9043857

Project Notes: Mike Krause - Office (610) 876-5523 x 218 --
Cell (610) 633-4002Collected By: Delcora
(Full Name)

Comments: _____

9043857-01 Springhill EffluentTotal Nitrogen(TKN, NO₂-N, NO₃-N), NO₂-N EPA 300.0, NO₃-N EPA 300.0
NH₃-N D6919-03, PO₄ (Hach Tubes) SM 4500P-E, TKN EPA 351.2

Matrix: Non-Potable Water

Type: Composite (Simple)

A - PI 500ml H₂SO₄

B - PI 250ml NP

Date: 12-26-19
Time: 0735Relinquished By: M. M. Szymanski Date/Time: 12-19Received By: V. Baer Date/Time: 12/20/19 1045

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 12/20/19 1320

Relinquished By: _____ Date/Time: _____

Received as Laboratory By: V. Baer Date/Time: 12/20/19 1645

The Client, by signing (or having the client's agent sign), agrees to MIRA's Terms and Conditions and to pay for the above requested services including any additional associated fees incurred.

Page 1 of 1

Printed: 12/17/2019 12:40:18PM

Sample Kit Prepared By:	Date/Time
Sample Temp (°C):	<u>1</u>
Samples on Ice?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> NA
Approved By:	<u>V. Baer</u>
Entered By:	<u>V. Baer</u>

Report Template: 1 Page 2 of 3

MJRA Terms & Conditions

All samples submitted must be accompanied by signed documentation representing a Chain of Custody (COC). The COC Record acts as a contract between the client and MJRA. Signing the COC form gives approval for MJRA to perform the requested analyses and is an agreement to pay for the cost of such analyses. COC Records must be completed in black or blue indelible ink (must not run when wet). COC documentation begins at the time of sample collection. Client is required to document all sample details prior to releasing samples to MJRA. All samples must be placed on ice immediately after sampling and shipped or delivered to the laboratory in a manner that will maintain the sample temperature above freezing and below 6C (loose ice is preferred).

Sample Submission, Sample Acceptance & Sampling Containers

Included on the COC must be the sample description, date and time of collection (including start and stop for composites), container size and type, preservative information, sample matrix, indication of whether the sample is a grab or composite, number of containers & a list of the tests to be performed. Poor sample collection technique, inappropriate sampling containers and/or improper sample preservation may lead to sample rejection. Suitable sample containers, labels, and preservatives (as applicable), along with blank COCs are provided at no additional cost.

Turnaround Times (TAT)

Average TAT for test results range from 5 to 15 working days depending on the specific analyses and time of year submitted. Faster turnaround times (*RUSH TAT) may be available depending on the current workload in a particular department and the nature of the analyses requested. We encourage you to verify requests for expedited sample results with one of our Technical Directors prior to sample submittal. Without confirmation from a Technical Director, your results may not be completed by your deadline. *RUSH TAT Surcharges are applied for expedited turnaround times.

Analytical Results, Sample Collection Integrity & Subcontracting

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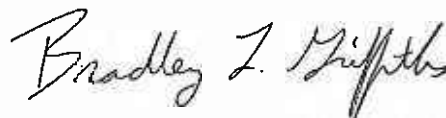
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Bradley T Griffiths
Project Manager



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