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	MARCH 2017
	CHAPTER 94 WASTELOAD MANAGEMENT REPORT FOR CALENDAR YEAR 2016 HALIFAX AREA WATER AND SEWER AUTHORITY DAUPHIN COUNTY, PENNSYLVANIA
	HRG Project No. 001650.0425



## CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

## For Calendar Year: 2016

Permittee is owner and/or operator of a POTW or other sewage treatment facility

Permittee is owner and/or operator of a collection system tributary to a POTW not owned/operated by permittee

GENERAL INFORMATION							
Permittee Name:		Halifax Area Water and Sewer Authority	Permit No.:	PA0024457			
Ма	iling Address:	PO Box 443	Effective Date:	June 1, 2011			
Cit	y, State, Zip:	Halifax, PA 17032	Expiration Date:	May 31, 2016			
Contact Person:		Jeffrey Grosser	Renewal Due Date:	Submitted November 20,2015 Draft Permit Issued January 31, 2017			
Titl	e:	Operator	Municipality:	Halifax Borough, Halifax Twp			
Ph	one:	717-896-3886	County:	Dauphin			
Email:		jgrosser@hawasaonline.com	Consultant Name:	Herbert, Rowland & Grubic, Inc.			
		CHAPTER 94 REPORT	COMPONENTS				
1.	<ol> <li>Attach to this report a line graph depicting the monthly average flows (expressed in MGD) for each month for the past 5 years and projecting the flows for the next 5 years. The graph must also include a line depicting the hydraulic design capacity per the WQM permit. (<u>25 Pa. Code § 94.12(a)(1)</u>)</li> <li>Check the appropriate boxes:         <ul> <li>Line graph for flows attached (Attachment A)</li> <li>DEP Chapter 94 Spreadsheet used (Attachment A)</li> </ul> </li> </ol>						
	Section 1 is not applicable (report is for a collection system).						
2.	<ol> <li>Attach to this report a line graph depicting the monthly average organic loads (express as lbs BOD5/day) for each month for the past 5 years and projecting the organic loads for the next 5 years. The graph must also include a line depicting the organic design capacity of the treatment plant per the WQM permit. (25 Pa. Code § 94.12(a)(2))</li> </ol>						
	<ul> <li>Check the appropriate boxes:</li> <li>Line graph for organic loads attached (Attachment A)</li> <li>DEP Chapter 94 Spreadsheet used (Attachment A)</li> <li>Section 2 is not applicable (report is for a collection system).</li> </ul>						

3.	If the DEP Chapter 94 Spreadsheet was not used to determine projections, discuss the basis for the hydraulic and organic projections. In all cases, include a description of the time needed to expand the plant to meet the load projections, if necessary, and data used to support the projections should be included in an appendix to this report. ( $25 Pa. Code \S 94.12(a)(3)$ )
	Based on the projected hydraulic and organic loadings for the next five years, no overload is expected at the Halifax WWTP.
4.	Attach a map showing all sewer extensions constructed within the past calendar year, sewer extensions approved or exempted in the past year in accordance with Act 537 and Chapter 71, but not yet constructed, and all known proposed projects which require public sewers but are in the preliminary planning stages. The map must be accompanied by a list summarizing each extension or project and the population to be served by the extension or project. If a sewer extension approval or proposed project includes schedules describing how the project will be completed over time, the listing should include that information and the effect this build-out-rate will have on populations served. ( $25 Pa. Code \S 94.12(a)(4)$ )
	<ul> <li>Check the appropriate boxes:</li> <li>Map showing sewer extensions constructed, approved/exempted but not yet constructed, and proposed projects attached (Attachment B)</li> <li>List summarizing each extension or project attached (Attachment B)</li> </ul>
	Schedules describing how each project will be completed over time and effects attached (Attachment B)
	Comments: The previously exempted (2012) sewer extension to a new Sheetz convenience store located at the intersection of S.R. 225 and S.R. 147 (2,000 gpd) was constructed in 2016 and the facility is now in operation and served by the Authority. The extension is shown on Attachment B. No new sewer extensions were approved or exempted in 2016.
5.	Discuss the permittee's program for sewer system monitoring, maintenance, repair and rehabilitation, including routine and special activities, personnel and equipment used, sampling frequency, quality assurance, data analyses, infiltration/inflow monitoring, and, where applicable, maintenance and control of combined sewer regulators during the past year. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(5))
	Analysis of WWTP influent, effluent and sludge was conducted at minimum permit frequencies through certified lab(s). The plant operator completes the daily samples such as pH, dissolved oxygen and chlorine residual. All other testing is contracted to Microbac Laboratories. Repairs to the system are conducted on an as-needed basis. There are 2 full-time operators of the sewer system, shared with the water system. The collection system maintenance program consists of checks on manholes throughout the collection system. Manhole inserts have been placed in manholes that appear to be affected by inflow. No serious problems have been observed in the collection system. The system is not a combined sewer system and no regulators are present.

6.	Discuss the condition of the sewer system including portions of the system where conveyance capacity is being exceeded or will be exceeded in the next 5 years and portions where rehabilitation or cleaning is needed or is underway to maintain the integrity of the system and prevent or eliminate bypassing, CSOs, SSOs, excessive infiltration and other system problems. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(6))											
	<ul> <li>Check the appropriate boxes:</li> <li>□ System experienced capacity-related bypassing, SSOs or surcharging during the report year. On a separate sheet, list the date, location, and reason for each bypass, SSO or surcharge event.</li> <li>□ System did not experience capacity-related bypassing, SSOs or surcharging during the report year.</li> </ul>											
	Comments:											
	No serious conditions observed in the collection system. Corrective Action Plan (CAP) and WQM Part II permit were previously submitted to DEP. HRG (Authority's current engineer) is reviewing and reevaluating the Main Pump Station pump operations strategy and anticipates submitting a revised CAP in the Spring of 2017.											
7.	Attach a discussion on the condition of sewage pumping (pump) stations. Include a comparison of the maximum pumping rate with present maximum flows and the projected 2-year maximum flows for each station. (25 Pa. Code § 94.12(a)(7))											
	Check the appropriate boxes:											
	The collection system does not contain pump stations											
	$\therefore$ The collection system does contain pump stations (Number – 2) $\therefore$ Discussion of condition of each pump station attached (Attachment C)											
	Discussion of condition of each pump station attached (Attachment C)											
8.	If the sewage collection system receives industrial wastes (i.e., non-sanitary wastes), attach a report with the information listed below. (25 Pa. Code § 94.12(a)(8))											
	a. A copy of any ordinance or regulation governing industrial waste discharges to the sewer system or a copy of amendments adopted since the initial submission of the ordinance or regulation under Chapter 94, if it has not previously been submitted.											
	b. A discussion of the permittee's or municipality's program for surveillance and monitoring of industrial waste discharges into the sewer system during the past year.											
	c. A discussion of specific problems in the sewer system or at the plant, known or suspected to be caused by industrial waste discharges and a summary of the steps being taken to alleviate or eliminate the problems. The discussion shall include a list of industries known to be discharging wastes which create problems in the plant or in the sewer system and action taken to eliminate the problem or prevent its recurrence. The report may describe pollution prevention techniques in the summary of steps taken to alleviate current problems caused by industrial waste dischargers and in actions taken to eliminate or prevent potential or recurring problems caused by industrial waste dischargers.											
	Check the appropriate boxes:											
	Industrial waste report as described in 8 a., b. and c. attached (Attachment)											
	Industrial pretreatment report as required in an NPDES permit attached (Attachment )											

9. Existing or Projected Overload.						
<ul> <li>Check the appropriate boxes:</li> <li>This report demonstrates an existing hydraulic overload</li> <li>This report demonstrates a projected hydraulic overload</li> <li>This report demonstrates an existing organic overload</li> <li>This report demonstrates a projected organic overload</li> </ul>	d condition. d condition. condition. condition.					
If one or more boxes above have been checked, attach a C or projected overloaded conditions under §§ 94.21 and overload). ( <u>25 Pa. Code § 94.12(a)(9)</u> )	Corrective Action Plan (CAP) to reduce or eliminate present d/or 94.22 (relating to existing overload and projected					
Corrective Action Plan attached (Attachment )						
10. Where required by the NPDES permit, attach a Sewage S balance of solids coming in and leaving the facility over the	Sludge Management inventory that demonstrates a mass previous calendar year.					
Sewage Sludge Management Inventory attached (Attac	chment D)					
11. For facilities with CSOs and where required by the NPDES permit, attach an Annual CSO Report (including satellite combined sewer systems).						
Annual CSO Report attached (Attachment )						
<ol> <li>For POTWs, attach a calibration report documenting that been calibrated annually. (<u>25 Pa. Code § 94.13(b)</u>)</li> </ol>	flow measuring, indicating and recording equipment has					
Flow calibration report attached ( <b>Attachment E</b> )						
RESPONSIBLE OFFICIA	AL CERTIFICATION					
I certify under penalty of law that this document and all attachm accordance with a system designed to assure that qualified pe submitted. Based on my inquiry of the person or persons who for gathering the information, the information submitted is, to complete. I am aware that there are significant penalties for se and imprisonment for knowledge of violations. See 18 Pa. C.S.	ments were prepared under my direction or supervision in ersonnel properly gathered and evaluated the information manage the system or those persons directly responsible the best of my knowledge and belief, true, accurate, and ubmitting false information, including the possibility of fine § 4904 (relating to unsworn falsification).					
Fred L. Ford, Jr., Chairman						
Name of Responsible Official	Signature					
717-896-3886						
Telephone No.	Date					

## PREPARER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared by me or otherwise under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. 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 knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

## Justin J. Mendinsky, P.E.

Name of Preparer

Signature

717-564-1121

Telephone No.

Date



penns	ylvania	a			PADEP Cha	apter 94 Spreadsh	eet				
DEPARTMEN	T OF ENVIRON	MENTAL			Sewage	e Treatment Plants	6		R	eporting Year:	2016
Facility Name:	Halifax Waste	ewater Treatm	ent Plant			Permit No.: P/	A0024457		F	ersons/EDU:	3.5
Existing Hydraulic I	Design Capa	city:	0.21	MGD		Existing Organic De	esign Capaci	ty:	527	bs BOD5/day	
Upgrade Planned in	Next 5 Year	rs?		Year:		Upgrade Planned ir	n Next 5 Year	s?		Year:	
Future Hydraulic De	esign Capaci	ity:	Ν	MGD		Future Organic Des	ign Capacity	: _	1	bs BOD5/day	
	Mon	thiv Average	Flows for Pa	ast Five Years (I	MGD)		Monthly A	verage BOD	5 Loads for I	Past Five Years	(lbs/dav)
Month	2012	2013	2014	2015	2016	Month	2012	2013	2014	2015	2016
January	0.098	0.098	0.0866	0.0774	0.0902	January	90	90	96	136	380
February	0.102	0.101	0.0822	0.0691	0.1269	February	155	163	140	101	325
March	0.102	0.103	0.102	0.0976	0.1153	March	144	105	155	142	253
April	0.095	0.102	0.1446	0.1123	0.1062	April	249	166	153	199	190
May	0.122	0.105	0.1525	0.121	0.1173	May	197	133	241	347	262
June	0.113	0.115	0.1541	0.129	0.1239	June	77	15	317	513	303
July	0.117	0.116	0.1284	0.1264	0.1244	July	156	179	362	317	328
August	0.111	0.108	0.1155	0.1181	0.1198	August	130	181	200	171	208
September	0.106	0.104	0.1117	0.11	0.1038	September	210	157	168	357	152
October	0.098	0.109	0.1009	0.0985	0.0915	October	112	158	190	273	466
November	0.093	0.096	0.0832	0.0924	0.0784	November	90	185	156	100	175
December	0.102	0.102	0.095	0.0996	0.0765	December	135	157	153	147	148
Annual Avg	0.105	0.105	0.1131	0.1043	0.1062	Annual Avg	145	141	194	234	266
Max 3-Mo Avg	0.117	0.113	0.1504	0.1255	0.1227	Max Mo Avg	249	185	362	513	466
Max : Avg Ratio	1.11	1.08	1.33	1.20	1.16	Max : Avg Ratio	1.71	1.31	1.86	2.20	1.75
Existing EDUs	737.0	737.0	739.0	739.0	749.0	Existing EDUs	737	737	739	739	749
Flow/EDU (GPD)	142.5	142.5	153.0	141.1	141.8	Load/EDU	0.197	0.191	0.263	0.316	0.355
Flow/Capita (GPD)	40.7	40.7	43.7	40.3	40.5	Load/Capita	0.056	0.055	0.075	0.090	0.101
Exist. Overload?	NO	NO	NO	NO	NO	Exist. Overload?	NO	NO	NO	NO	NO
	F	Projected Flo	ws for Next F	ive Years (MGI	D)		Proje	ted BOD5 L	oads for Nex	t Five Years (Ib	s/day)
	2017	2018	2019	2020	2021		2017	2018	2019	2020	2021
New EDUs	2.0	2.0	2.0	2.0	2.0	New EDUs	2	2	2	2	2
New EDU Flow	0.0003	0.0003	0.0003	0.0003	0.0003	New EDU Load	0.529	0.529	0.529	0.529	0.529
Proj. Annual Avg	0.107	0.1073	0.1076	0.1079	0.1082	Proj. Annual Avg	196	197	198	198	199
Proj. Max 3-Mo Avg	0.1258	0.1262	0.1265	0.1269	0.1272	Proj. Max Avg	347	348	349	350	351

### Show Precipitation Data on Hydraulic Graph?

NO

Proj. Overload?

	Total M	onthly Precip	itation for Pas	st Five Years (	(Inches)
Month	2012	2013	2014	2015	2016
January					2.0
February					3.5
March					1.6
April					1.7
May					5.15
June					2.75
July					4.8
August					1.35
September					2.05
October					1.5
November					1.5
December					3.2

NO

NO

NO

NO

Proj. Overload?

NO

NO

NO

NO

NO









GLACE ASSOCIATES, INC.,	SCALE DATE FIL	GENERAL PLA SANITARY SEWERAGE FOR CORRECTIVE AC	HALIFAX AREA WATER AND DAUPHIN COUNTY, PI	S.R. 4013 POWELLS VALLEY ROAD
CAMP HILL, PA.		OF FACILITIES	NNSYLVANIA	PROPOSED SEWER REVENSION TO VER STORE SEVER STORE SEVE



## CONDITION OF THE PUMP STATIONS

HAWSA utilizes two (2) pump stations throughout the sanitary sewer system. The pump stations are maintained and inspected by the operators on a regular basis. Cleaning, repairs, and routine maintenance items are performed as needed.

Boyer Street Pumping Station - Location: Boyer Street, Halifax Township

Design Capacity:	50 gpm (1 pump basis)
Present Flows:	Average: 0.6 gpm
	Maximum (Peak Hourly Flow estimated): 50 gpm
	Projected two-year maximum peak hourly flow estimated: 50 gpm
	(design basis of new Boyer Street Pump Station for maintaining velocity
	in 4-inch force main)

The Boyer Street Pump Station was upgraded to submersible pumps at the end of 2014 and began operations in 2015. The single phase pumps run full speed. Attached runtime records indicate total runtime for the station is typically around 2 hours per week, usually divided equally between the pumps.

<u>Main Pumping Station</u> - Location: At the Treatment Plant, conveying all flow from the Borough and the northern Halifax Township service area (including flows from Boyer Street Pumping Station).

There are two (2) suction lift pumps with separate 4-inch suction lines, discharging into a single 4-inch force main. The pumps are variable speed based on use of variable frequency drives, so only maximum flows can be estimated based on runtime. Due to the small size of the force main, 2 pumps on represents a much lower flow rate than twice one-pump flow.

Previously, a Corrective Action Plan (CAP) and corresponding Water Quality Management Permit (WQMP) application was submitted to DEP by the Authority's previous engineer. This CAP and WQMP have not been approved by DEP. HRG (Authority's current engineer) is reviewing and reevaluating the Main Pump Station operation strategy and configuration and anticipates submitting a revised CAP in the spring of 2017.

Design Capacity:	175 gpm (1 pump basis)
Present Flows:	Average: 70 gpm (estimated based on plant flow)
	Maximum (Peak Hourly Flow estimated): 240 gpm
	Projected two-year maximum peak hourly flow estimated: 240 gpm
	(based on effective capacity of 2 pumps together into small 4-inch force main)
	As noted plant return flows are included.

Wastewater from the Halifax School and southern Halifax Township service area flows directly to the headworks. The Peak Hourly Flow at the WWTP is determined to be 360 gpm based on analysis of effluent WWTP flow meter charts for this flow-through treatment plant.

## **BOYER STREET PUMP STATION**

MONTH	YEAR					
			_			
12-31-15		538.6		1010	269.3	
DATE		<u>PUMP #1</u>	HRS		PUMP #2	HRS
1-8-16		539.9	12		270.5	1.2
1/						
1-14-10	·	541.9	1.1	1017	271.7	1.2
1-18-16	11:05	541.5	ιų	11:05	272.3	· W
1-22-16	2016	542.1	+6	1025	272.9	-6
1-27-16	2016	5429	- 0	950	273.7	-9_
2-4-16	2016	5 44.3	1.4	1345	275.1	1.4
215-16	2016	546.7	2.4	156	277.8	2.7
2-19-14	2016	548.4	1.7	8:42	279.9	201
2-29-16	2016	553.3	4.9	1010	295.0	5.9
3-11-16	2016	558.8	5.5	1120	291.1	5.3
3-16-16	2016	561.3	2,5	0400	247.4	6.3
3-18-16	2016	562.3	L	1000	300,4	3
3-22-16	2115	564	1.7	1800	303.4	
3-29-16	2016	5.64.4	- 4	1600	309.4	1
3:30-16	2016	567.4	3	1030	3059	1.2
62-1/2	3016	569.4	2	1030	310	4.2
4-6-16	2016	570		1000	21017	-7
4-15-16	2016	570.5	4.5	1020	328.5	17.9
4-19/16	2016	576-2	1.7	0950	334,2	5.7
4-22-10	00%	571.0	1.4	620	3353	
4-25-16	2016	570-6		1010	336.1	-8
4-08-16	2016	579.7	1.]	1020	337.4	13
52-16	2016	590.5		1045	339.7	.9
5-5-16	2016	5814	- 19	1050	339.1	<u> </u>
5-4-16	2016	582.4		0940	340.L	<u>L</u>
5-11-16	2016	103-2	- 8	1030	-340-7	10
5-12-14	2016	583.4	<u>, ə</u>	10:05	340.9	<u> </u>
5-16-16	2010	584.4	1	1010	342.2	1.3
5-20-16	2016	585.4	Ł	1000	343.2	1
3-23-16	2016	586.3	+ 4	1045	344.1	.4

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## **BOYER STREET PUMP STATION**

MONTH	YEAR					
DATE		<u>PUMP #1</u>	HRS		PUMP #2	HRS
5-26-10	2016	-597	-7	1045	345	-1
531-16	2016	580	1	1030	346.3	1.3
63-16	3016	588.7	-7	0900	347	
6-076	2016	584.4	1.2	0400	3403	1.3
0-10-16	2016	590.3	.4	0925	348.8	.5
6-14-16	2016	591.2	-4	1120	347.7	.9
6-21-16	2016	592.7	1.5	1000	351.5	1.8
6-27-16	2010	594-1	1-9	1095	353	1.5
1-1	2016	595-1	1.0	10:50	354	1.0
7-5	2016	596.0	. 9	'0825	354.9	,9
7-7	2016	596.5	.5	1020	355.4	.5
7-11	2016	547.5	1.0	1020	356.3	.9
7-15	2016	598.4	, 9	10.50	357.3	1.0
7-18	2016	599.1	.7	1025	355-2	• (*
7-22	2016	599-0	7	1010	359.2	1-0
7-25	2016	600,3	.5	1030	359.9	.7
7-29	2016	601.1	. 8	1125	360.6	.7
8-5	2016	602.6	1.5	1045	361.9	1-3
8-12	2016	604.1	1.5	1025	363.1	1.2
8-19	2016	605.7	1.6	1040	36A.6	1.5
8-23	2014	606.0	. 9	0900	2105.5	,9
8-26	2016	607.4	•8	11:10	366.0	15
9-2	2016	608.6	12	1100	367.4	1.4
4-9	2016	609.7	1.1	1020	368.6	1-2
9-12	2016	610.3	-6	1120	369.3	.7
9-16	2016	Toll 1	.8	9:50	370.2	.9
9-23	2016	612.4	1.3	10:00	371.8	1.6
9-26	2016	613	.6	10:20	372.4	.6
10-3	2016	(014.2	1.2	08:40	374.0	1.6
10-5	2016	614.6	.4	OPDI	374.4	.4
10-7	2016	614.9	.3	1030	374.8	-4

NO.

		BOYER	STREET	F PUMP STATI	ON	
DATE:	TIME:	PUMP #1	HOURS	<u>PUMP #2</u>	HOURS	TOTAL
10-10-16	1100	615.4	.5	375.4	-6	1.1
10-14-16	1630	061	.7	376.2	.8	1.5
16-12-16	0945	616.6	5	376-7	35	1.0
10-21-16	1030	1017.4	.8	377.4	.7	1.5
10-24-16	1DIO	617.9	-5	378	-6	1.1
10-31-16	1035	019.	1.2	379.1	1.1	2.3
11-4-16	10:45	619.7	.6	379.8	.7	1.3
1-7-16	1030	620.2	5	280.3	-5	 1.0
11-11-16	09:55	620.8	.6	380.9	.6	1.2
11-21-16	10:05	132.7	1.9	382.6	1.7	3.6
11-2-16	10:00	623.5	.8	393.5	-4	1.7
12-1-16	10:05	624.7	1.2	384.6	1.1	2.3
13-5-16	idss	1025.2	-5	395.2	6	11
12-9-16	11.00	625.9	,7	385.9	.7	 1.4
12-19.16	1600)	127.5	. 26	3377	1.9	3.4
12-23-16	1000	629.2	.7	383.6	.9	1.6
2-28-16	0645	629	.9	399.5	.9	1-7
1-6-19	1010	630.4	1.6	391.3	1.3	3.4
2-12-17	1015	631.6	1.0	392.6	1.3	23
-19-12	1035	632.8	1-2	394	1.4	2.6
-23-11	1040	633.5	-7	395	1.0	1-7
27-17	0835	63A.3	. 8	396.4	1.4	2.2
-30-17	1000	631-9	-6	397.2	-8	1.4
2-6-17	0815	636.4	1.5	398.7	1.7	3.2
-13-17	1045	638	16	400.4	1-5	31
2-20.17	1020	639.5	1.5	2102	1.6	3.1
2-24-17	1100	1040.5	1.0	402.9	- 9	1.9
2-27-11	1020	6412	.7	403.6	17	1.4

GEN. - 1020 - RUN

2016 JANUARY POMP RUN FILMES RUN HQ RUN 世1 pump TIME :37PO PUNP 1.2 10962.4 24 18277.8 JAN. L 3.3 24 10965.7 19301.9 23456 22 10967.7 24 18325.9 10969.7 23.9 18349.7 1.7 10971.4 24 18373.7 109719 .5 23.6 18397.3 . 3 10972.2 23.6 18420.9 9.8 18981 18444.9 24 8 184 18468,9 24 10999.4 0 23-2 24 11022.6 18 492.9 10 24 11046.6 11 19503.9 [] 23.8 11070.A # 4 18504-3 12 11094.4 24.0 3.0 18507.3 13 R4 10118.4 1.6 18508.9 14 24.0 11142.4 15 18510.6 26.1 1168.5 2.3 18512.9 16 25.8 2.7 11194.3 18515.6 17 19.7 11214.0 • 5 18516.1 18 24 112.38 18517.01 18 19 23.9 11261.9 18518.6 .7 90 22.4 11284.3 18518.6 Ø  $\mathcal{A}$ ÌÌ 11306.3 18510,6 99 1139.8.2 185/8.6 83 11349.6 214 18518.6 RA 11371.5 219 18518,6 2,5

A A A

	POMP	RUN M	EMES		
OATE:	#1: pump	RUN TIME	#2 Pump.	RUN	
1-26-16 27 28	18,518.6 18,518.6 18,518.6	8	11,393.6 11,415.7 11,437.7	22-1 22-1 22	2
29 30 32	18579.2 18519.4 18519.4	.6 .2 .0	11459.6 11483.7 11506.4	22.9 24.1 22.7	line -
-	FEB	LUDARY			
DATE:	#1 PUMP	RUN	til pump	RON	
2-1-16 234567009101123 1314	18,579.6 18,520.6 18,520.6 18,521.1 18,522.8 18,523.2 18,523.5 18,523.5 18,523.5 18,523.5 18,523.9 18,523.9 18,523.9 18,523.9 18,523.9	.2 . 1 5 7. 2 2 . 2 . 2 . 2 . 2 . 2 . 2 . 2 . 2	11:528.2 11:549.7 11:571.5 11:575.4 11:595.4 11:642.3 11:642.3 11:645.6 11:649.1 11:712.1 11:712.1 11:712.1 11:758.5 11:758.5 11:758.5 11:758.5 11:758.5 11:758.5 11:758.5	21.8 21.5 21.8 23.9 23.4 23.5 23.4 23.5 23.4 23.4 23.4 23.4 23.4 23.4 23.4 23.4	

		FE.	BRUARY	2016	
		PU	mp RUN	TEMES	
	DANE:	1 #1 Pomp	RUN PEME	#2 PUMP	RUD
	2-25-16 16 17 18 19 20 21 22 23 24 25 26 27 28	18,523.9 18,524.6 18,524.6 18,539.4 18,542.6 18,542.6 18,542.6 18,542.6 18,542.6 18,542.6 18,542.6 18,542.6 18,542.6 18,542.6 18,542.6 18,542.9 18554.5 18,555.1 18,555.1 18,556.2 18,557	1.8 1.8 1.1 1.1 3.6 6.6 1.1 8 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	11850.4 11873,2 11873,2 11877.2 1197.2 11944.6 11968.6 11968.6 12944.6 12016.4 12016.4 12016.4 12040.4 12088 12111.9 12135.9 12159.8	$ \begin{array}{c} 31.8 \\ 22.8 \\ 24.8 \\ 23.7 \\ 23.7 \\ 24 \\ 23.8 \\ 24 \\ 23.8 \\ 24 \\ 23.6 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 23.9 \\ 24 \\ 24 \\ 23.9 \\ 24 \\ 24 \\ 23.9 \\ 24 \\ 24 \\ 23.9 \\ 24 \\ 24 \\ 23.9 \\ 24 \\ 24 \\ 24 \\ 23.9 \\ 24 \\ 24 \\ 24 \\ 24 \\ 24 \\ 24 \\ 24 \\ 24$
			MARCH	2016	
-	DAYE:	#l Pomp	RUN	#A Pomp	RUN
	3-1-16 23456	18,558.7 18,558,7 18,558,7 18,558,7 18,558,7 18,558,7 18,558,7	1.5	12207.6 12231.1 12254.5 12278 12278 12301.4 12324.6	23.9 23.5 23.5 23.4 23.5 23.4 23.4

and the first state of the A

MARCH 2016 PUMP RON TEMES

	· · · /			
	1 #1	RUN	北氏	RUN
SATE:	POMP	TIME	PUMP	NUME
3-7-16	18558.7	B	12.347.8	23.2
8	18561.1	2.4	12371.3	23.5
Ţ	18561.1	0	12395.2	23.9
10	18561-1	ø	12418.9	23.7
aller and	18561.1	0	12442.3	23.4
12	18561.1	-8-	12465.6	23.3
- 13	18561.1	0	12.488.4	22.8
14	18561.1	0	12510.2	21.8
15	18561.1	0	12532.8	22.6
16	18561.9	.8	12556	23.2
17	185619	B	12577.9	21.9
18	18561-9	:D	12600.6	22.7
19	18561.9	0	12623.7	22.3
20	185,62.0	*	12646.5	22.8
81	18562.1		12669.0	22.5
22	18562.1	8	12,692.3	23.3
23	18562.1	ø	12715.1	22.8
24	18566.6	4.5	12739.	23.9
25	18566-8	.2	12762.9	23.9
26	18567.2	* 4	12786.9	24
27	18570.2	3	12810.8	23.9
28	18572.2	2	12834.8	24
29	18573.4	1.2	12,858.7	23.9
30	18576,7	3.3	12582.7	24
31	18576.8		12905.7	23

2016 MARCH RUN JUNES Pomp RUN #J 土1 RUN pomp Jame TOME PUMP DATE: 12905.7 18576.8 RUN 出入 RUN 41 POMP JEME POMP TIME : JTAO 12928.2 18576.9 22.5 ø APRIL 1 12950.6 22.4 Ì 18576.8 2 12973.1 22,5 Ó 18576.8 3450 21.6 12994.7 18576.8 Ø 21.5 13016.2 B 18576.8 13040 23.8 .2 195777 24 130: 780 Ø 18577 13088 24 18577 Ø 13112 24 0 18577 13135 23 0 10 18577 23 13158 OLL 18577 23.1 13/87.1 Ø 12 18577 23.5 13204.6 13 Ø 18577 22.4 13227 14 ÌÌ 18577 22 13849 B 15 18577 18577 13275 26 ø 16 13293.3 18.3 Ø 18577 17 13315.9 22.6 •3 185773 18 13321.9 6 18593.9 16.8 19 SWATCH 1.6 13333.5 18617.5 23.6 26

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	APRI	1 2016	2=	
0075.	HL DUMP	RUN	#2 Pomp	BUN NOME
10000 21 22 23 24 25 26 25 26 26 26 26 26 26 26 26 26 26 26 26 26	18640-6 18663-2 18663-2 18687.3 18709.2 18732.4 18732.4 18732.4 18732.4 18779.3 18901.9 18901.9 18824.5 18846.	23.1 22.6 24.1 23.2 23.2 23.2 23.2 22.2 22.2 22.2 22	13324.8 13324.8 13324.8 13324.8 13324.8 13324.8 13324.8 13325. 13325. 13325. 13325. 13325.	1.3 1.3 1.3 1.9 1.9 1.9 1.9 9 0 9 0 1.9 1.9 1.9 1.9 9 0 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9
DATE:	Pomp 1 18870 2 18894. 3 18994. 3 18939. 4 18939. 4 18939. 5 18962 18986 7 19010 8 19033 9 19057 10 19077 10 190777 10 19077 10 190777 10 190777 10 190777 10 190777 10 190777 10 1907777	6 23. 6 23. 2 2. 2	$\begin{array}{c c} & pomp\\ & 13325\\ 6 & 13325\\ 2 & 13325\\ 2 & 13325\\ 5 & 1332\\ 5 & 1332\\ .5 & 1332\\ .5 & 1332\\ .6 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332\\ .0 & 1332$	$   \frac{1}{29} $ $   \frac$

e 4 4.12 (acal)

	MA	<u>4 2010</u>		
•	POV	NP RON	1 The	RUN
DATE:	pomp	TOME	POMP	TIME
MA4 13	19150.D	23.9	13336.6	0.7
.14	19174.4	24.4	13330.6	0.0
15	19199.3	24.9	13330.6	0.0
16	19219.8	20.5	13 330.6	0
27	19243.6	23.8	13330.6	D
18	19267.5	23.9	13330.6	18
19	19291.2	23.7	13335.6	0
0.6	19315.4	24.2	13330.6	N N
1 21	14338.5	23.1	1.5330.6	×
22	19361.2 10001.	010	13330.6	
23	11500	04.0	12200.0	
84	12410.5	24.7	12232.4	1-7
33	19434.1	20.0	12233.5	11
- 1 :27	1944	24.1	13235.4	1.9
1 29	19503 8	23.2	13336-9	1.5
29	19526.0	22.2	13336.9	0,0
30	19545.4	19.4	13396,9	0
31	19567	21.6	13336.9	0

JUNE 2016

POMP RON TIMES

Howard a

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DATE:	Pomp	RUN TEIME	#2 PUMP	RUN
DATE: 123 A 567891011 12 13 A 1567 18 19 20 21 22 23 A 567 891011 12 13 A 1567 18 19 20 21 22 23 23 23 23 23 23 23 23 23 23 23 23	Pome 19590.5 19613. 1963.5 1960.5 1960.5 19683.5 19683.5 19706.6 19730.1 19753.1 19753.1 19753.1 19753.1 19753.1 19800.6 19800.6 19823.8 19892.7 19892.7 19892.7 19892.7 19892.7 19892.7 19892.7 19892.7 19892.7 19892.7 19892.7 1985.2 19892.7 1985.2 1985.2 1965.2 1005.3 1005.3	RUN 13.5 23.5 23.9 23.9 23.9 23.9 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 23.2 2	#2 PUMP 13336.9 13336.9 13336.9 13336.9 13336.9 13336.9 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13337.	RUN ME 000000000000000000000000000000000000

		51	INE A	016			
	-	pomp	RUNS	TIMES			Re-
DA	IE:	POMP	RUN TIME	#2 pump	RUN TIME		
SUNE	15 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20153 20177 20201.1 20205.1 20249 20249 2023.1	23.9 24 24.1 24.1 24 23.9 23.9 24.1	13337,6 13337,6 13337,6 13337,6 13337,6 13337,6 13337,6	100000		L L L L L L L
TAO	t:: .9 1	#1 pump 20297.5	JULY ROW TUME 24,4	#2 PUMP 13337.6	RUN TOME O		
BELT	253 4 55 6 7 00	20 321.0 20 345.9 20 345.9 20 313.1 20 313.1 20 439.7 20 439.7 20 46 3.3	23.5 24.9 23.7 23.5 23.5 23.5 23.6 22.6 24	13337.6 13337.6 13337.6 13337.6 13337.6 13337.6 13339.6 13339.6	60000		
cla-TANK	01012234	20511.7 20511.7 20535.6 20559.6 20583.6 20583.6 20607.6	24 24 23.9 24 24 24 24 .0 .24	13339.6 13339.6 13339.6 13340.5 13346.5 13346.5 13340.5	99.99	5	* ? * * * * * *

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2016 5014 RUN TEMES pomp RUN 半ろ RUN 七1. 9 PUMP MAME TIME Poine JTA0 0 13340,5  $\bigcirc$ 24.2 20631,8 C 5069 15 0 13040.5 23.74 20655.5 C 16 13340.5 0 26.5 e 20682.0 17 13340.5 Ø 21.6 e 25703.6 18 24:1 e 13340.5 Ô 19 60727.7 6 13340.5 À 23.9 20751-6 00 e 13340.5 24 20775.6 al e 13341.2 229 20798.5 22 FURICH 133412 D 239 23 20822.4 SWEYPH BAOV Ð 13341.2 20846.4 24. 24 -6 13341.2 29.2 20870.6 Í 25 Swertch 9 2.8 13744.0 20.3 20890.9 26 Ì 133440 23.8 20914.7 27 133440 24 26938.7 28 Ó 13 344.0 20963:0 24.3 29 SWORH 7 1.8 13345.8 20986.2 23.2 30 13345.0 Ø 24 21010.2 31

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AUGUST 2016 POMP RON DOMES

	DATE:	POMP	RUR TEME	Pomp	RUD Dame	
7	AUG. 2 3	21033,2 21057.1 2109 L.L	23.9	13345.8 13345.8 13345.8	000000000000000000000000000000000000000	
	456	21105-1 21129.1 21153.1	24 24 24	1345.8 13345.8 13345.8	D D D	
	9	21177.4 21201.2 21225-2	24.3 23.8 24	133458 13345.8 13345.8	¢ Ø Ø	
	10  11  2	21249.2 21260 21289.7	24 18.8 21.7	13345.8 13350.6 13351.7	9 4.8 1.1	
	12 14 15	21313.1 21337.6	29 23.9 24	13351.7 13351.7 13351.7	0,00	
CLEN DE	27 27 27 27	21385.6 21409.8 21433.7	24.2	1335/.7 13351.7 13351.7	0	
	~ M 6 20 5 21 5	(1453.9 11473.9 11494	20.2 20 20.1	13352.2 13352:9 13352.2	.4	
	23 23 24 0	1512.1 21524.7 1538.1	18.1 12.6 13.4	13352.2 2 13352.2 2 13352.2 2	555	
		1556,9	18.8	13352.2 R	5	-

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S. C. L. L.

PUMP'RON DEVMES

	DATE:	±1 pump	RUNE	Domp Domp	RUN TILME
	8-26-16	21577,3	20.4	13352.2	0
	28	216/1.9	169	13352.2	N.
	29	21633.1	21.2	13352.2	A
8	30	21657.1	24	13352.2	10
NY A	31	216 M.7	22.6	12356.2	4
		-	1. 		
		21	RUN	#3	BON
	DATE:	Pomp	<u>3MET</u>	pump	TIME
	SEPT. 1	21,700.7	21	13360.1	3.9
	2	21,724.7	24	13360,6	.5
	3	21741.9	25,2	13360.7	. [
	4	217765	26.6	13361.1 13361.1	0,4
	• 6	21820,7	23.4	13362.2	1.1
	* 7	21844.5	23,8	13362.4	, 2
	• 3 -	2860.7	34.2	13362.4	0
	9	21872.1	24	13362.6	,2
	10	2M16-1	24	13362.1	.5
		×1990,1	24	13363.7	.6
	12	2.1964.7	24	13363.7	Ø
	13	21973.8	S.L	13365.8	2.1
	24	219809	7.1	13368.8	3

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SEPTEMBER 2016 POMP RUN TIMES

DATE	1. HE	RUN	Fomp	TIME
SEPT. 15	2.1989.6	8,7	133-70 +7	1.1
16	21999.0	9.7	13371.4	
- 17	21999.9	• 6	13372,8	1.4
18	21999.9	0	13373.5	, ]
19	21999.9	0	13373.8	• 5
20	21999.9	D	12373.8	6
21	22019.9	20	13373.8	-6-
20	22043.9	24	13374.2	.4
23	22067.9	24.0	13375.7	1.5
24	220919	24	13375.7	Ø
2,5	22115.8	23.9	13375.7	B
26	20129.8	24	13375.7	,Ø
1. 27	22163.8	24	13375.7	-Or
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2	22201.	Ø	13378.2	.3
A	88901	0	13390.9	2.6
5	1.10666	X	13380.9	1

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OCTOBER 2016 POMP RON TOMES JE ¥2. RUN RUN DATE: pomp POMP JAME FIME Oct. G 22201. 1  $\bigcirc$ 13381.2 0.3 1 29220.9 19.8 13381.2 8 22239.1 19.2 é 13381.2 i D 9 e 222.57.6 18 133812 10 15 222721 13581.8 .6 11 7.9 22220 13392.0 1) 22285.2 5.2 13386.9 4.1 13 222,88,6 3.4 13398.2. 11.3 VJ SWITCHPOMPS 222.88.6 14 3.4 13399.2 11.3 222886 15 Ø 13419 C 20.8 16 222 88.6 0.0 13/441.4 ÷ 25.4 229.38.6 17 A ÷ 13466.4 22 de de la companya de 6 28 222,88.6 13490.4 24 19 12288.6 13514.4 24 20 ÷ •5 22289-1 13521.2 6.8 ÷ 21 22289.1 6 1352.8.7 7.5 ÷ 20 20289.1 Ø, 13527.7 9 -23 24 20289.1 13540.2 12.5 Ø 22389.1 13550.2 10 35 122289.1 13556.8 6.6 26 22289.1 à 13563.0 6.2 27 A2289. 13570.2 7.9 28 B 22289.1 13579.1 8.9 29 1.98626 B 13588.1 G 30 30 22289. Q 13597.9 9.8

OCTOBER 2016

PUMP RON TOMES

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		POMP	TEME	PUMP	June	
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	5	00000.2	Ø	00073.0	24.3	
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	12	60060. 2	8	00241.5	24	
	13	00000 2	8	00265.5	24	
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	15	20000.2	B	00313.5	24	
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NOVEMBER 2016 111111111111 PUMP RUN TIMES RUN 世纪 RON 北上 PUMP TOME HERE amp DATE: 23.9 457.2 Ø NOV. 21 00000.2 24.1 481.3 Ø 00000.2 39 23.8 505.1 Ø 2.0000 23 24 529.1 6.00000 24 RA 553.1 Ø 95 6.00000 C 29 Ø 577.1 66000.2 26 C 36.9 607,0 ø 21 00000,2-C 18.0 625.0 00000.2 B PPPPPP B 23.9 649.1 00000.2 201 673 600002 20 DECEMBER 2016 RW 世史 RON -tl ! TIME PUMP THE pomp OULE: 24 697 S 0000.2-DEC. 1 23.9 720.9 Ø 00000.2 2 23,1 744.5 ø.0 00000.2 3 24.1 768.6 Ø 00000.2 4567 24.5 793.1 Ø 6.00000 24.0 817.1 K Ø O 600000.2 23.9 841.0 - ' jo 60006.2 25.3 866.3 Ś 00000.2 23,7 840 2 K S 9 00000.2 24 914.2 1.000m  $| \cap$ 

DECEMBER 2016 POMP RUN JIMES #2 出 RUN RUN DATE: PUMP pomp IME DME 6 DEL 11 Ø 6.00002 009 38 23.8 12 22.9 G6000.2 60960.9 00934.9 13 00000.3 ad 14 DECAN 17 60000 24 01008.9 T 15 14 00013.4 0:032 231 F 30005,3 16 19 01054.6 22.6 17 00005.3 Ð 01078.6 24 8 Ò 60005.3 02.202.9 24.3 Ð 19 01127.0 00005.3 24.1 20 Ì 00005.3 01150.6 23.6 al X S 60005.3 0/174.5 2.3.9 00005.3 2 2198.5. 21 23 00005.3 Ì 01222.6 24.1 24 00005.3 Ò 01.246.5 23.97 SWATCH 6.3 25 000 11.6 18.5 01265 23 0400 26 00034.6 01865 Ø 27 00058.6 .3 01265.3 TANK 28 < DOWN 000 82.6 24 01267.7 2.4 012695 60/06.6 29 24 1.8 01291 6.90109 30 3 21.5 60109.6 31. 24.2 Ø 01315.2





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

## SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL SUPPLEMENTAL REPORT

Facility Name:	Halifax Area Water and Sewer	Authority
Municipality:	Halifax Borough	County: Dauphin
Watershed:	6-C	

l 

NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016 2016 JANUARY

 $\Box$  Check here if there were no off-site removal events during the month

		' Tons																	00
watered	Maleren	$= D_{N}$																	ē
Indra / Rinsolide Day	d Incinerated On-site	X % Solids																	TOTAL
Seware S	an	Tons dewatered																	
	ff-site	= Dry Tons																	0.00
	siosolids Hauled O	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	TOTAL
	I Sewage Sludge / E	X % Solids																	
e	Dewatered	Tons dewatered sludge																	
ites	slite	= Dry Tons								0.459	0.459	0.436							1.353
/ Biosolids Usilied Off		X Conv. Factor	X 0.0000417	TOTAL:															
nid Sawara Sludao	ann acwade annae	% Solids								2.0	2.0	1.9						2.0	
1 ion		Gallons								5,500	5,500	5,500						16,500	
		Late								1/15/16	1/15/16	1/15/16							

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

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	1.353165	
Gallons Disposed:	0	16,500	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

\* See Instructions for explanation

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. See Pa. C.S. § 4904 (relating to unsworn falsification).

Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

# SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name:	Halifax Area Water and Sev	/er Authority	
Municipality:	Halifax Borough	County: Dauphin	L
Watershed:	0-0		

FEBRUARY 2016 NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016

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

red	= Dor Tone																	0.00
Ige / Biosolids Dewate	X % Solide																	TOTAL:
Sewage Slud	Tons dewatered																	
site	= Drv Tons																	0.00
iosolids Hauled Off-	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 001	X 0.01	TOTAL:				
Sewage Sludge / B	X % Solids																	
Dewatered	Tons dewatered sludge																	
site	= Dry Tons																	0.000
Biosolids Hauled Off-	X Conv. Factor	X 0.0000417	TOTAL:															
id Sewage Sludge /	% Solids																j0//J0#	
Liqu	Gallons																0	
	Date																	

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

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	0	
Gallons Disposed:	0	0	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

\* See Instructions for explanation

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. See Pa. C.S. § 4904 (relating to unsworn falsification).

Jeffrey L. Grosser	Manager
Prepared By:	Title:

I

Signature:

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

## SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL SUPPLEMENTAL REPORT

Facility Name:	Halifax Area Water and Sev	wer Authority	
Municipality:	Halifax Borough	County: Dauphin	L 1
Watershed:	0-C		

I

NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016 2016 MARCH

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

۰.		-	-	_		_		_	_		_							_	-
	atered	= Dur Tone	cini fin																0.00
	udge / Biosolids Dew	X % Solids	00000000																TOTAL
	Sewage SI	Tons dewatered																	
	E-site	= Drv Tons																	0.00
	<b>Biosolids Hauled Off</b>	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	TOTAL:
	d Sewage Sludge / E	X % Solids																	
	Dewatere	Tons dewatered sludge																	
	site	= Dry Tons								0.711	0.734	0.642							2.087
	/ Biosolids Hauled Off-	X Conv. Factor	X 0.0000417	TOTAL:															
	uid Sewage Sludge	% Solids								3.1	3.2	2.8						3.0	
	Liq	Gallons								5,500	5,500	5,500						16,500	
		Date								3/1/16	3/1/16	3/1/16							

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

SITE 3									
SITE 2	Harrisburg Sewer Plant	Harrisburg	Dauphin	27198	Liquid Biosolids	2.087085	16,500	Sewer Plant	Kline's Septic
SITE 1	Kline's Septic	Salunga	Lancaster	101607	Liquid Biosolids	0	0	Sewer Plant	Kline's Septic
	Site Name:	Municipality	County:	DEP Permit Number:	Type of Material*	Dry Tons Disposal:	Gallons Disposed:	Type of Disposal/Use:*	Hauler Name:

\* See Instructions for explanation

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). 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

Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

# SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name:	Halifax Area Water and Sev	ver Authority
Municipality:	Halifax Borough	County: Dauphin
Watershed:	6-0	

APRIL 2016 NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016

 $\Box$  Check here if there were no off-site removal events during the month

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atered	- Day Tono	- UNIONS																	000
udge / Biosolids Dew	V % Colide	Spilon & V																	TOTAL
Sewage SI	Tons dewatered																		
f-site	= Drv Tons	2:01 6:2																	0.00
<b>Siosolids Hauled Of</b>	X 0.01		N 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	TOTAL:
1 Sewage Sludge / E	X % Solids																		
Dewatered	Tons dewatered sludge	2																	
site	= Dry Tons	0 FOF	0000							0.550	0.596								1.743
Biosolids Hauled Off-	X Conv. Factor	X 0.0000417		A 0.000041/	X 0.0000417	TOTAL:													
uid Sewage Sludge /	% Solids	26								2.4	2.6							2.5	
Liq	Gallons	5 500								5,500	5,500							16,500	
	Date	4/6/16								4/6/16	4/6/16								

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

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0.59631	1.14675	
Gallons Disposed:	5,500	11,000	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

\* See Instructions for explanation

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. See Pa. C.S. § 4904 (relating to unsworn falsification).

Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

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

## SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL SUPPLEMENTAL REPORT

Facility Name:	Halifax Area Water and Sew	er Authority
Municipality:	Halifax Borough	County: Dauphin
Watershed:	6-C	•

NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016 2016 MAY

 $\Box$  Check here if there were no off-site removal events during the month

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atered		= UN IONS																	0.00
dge / Biosolids Dewa	Incinerated On-site	A 76 JUIUS																	TOTAL:
Sewage Slu	Tone downtownd	I OIIS NEWALCIEU																	
site	= Dn/ Tone																		0.00
tiosolids Hauled Off-	X 0.01		1.0.0 Y	X 0.01	X 0.01	X 0.01	X 0.01	X 001	X 0.01	TOTAL:									
Sewage Sludge / B	X % Solids	00000																	
Dewatered	Tons dewatered sludge																		
site	= Drv Tons	0.720	0.24.0							0.275	0.413	0.413							1.330
Biosolids Hauled Off-	X Conv. Factor	X 0 0000417	I LOODID V	X 0.0000417	TOTAL:														
id Sewage Sludge	% Solids	10								1.2	1.8	1.8						1.5	
Liqu	Galions	5.500								5,500	5,500	5,500						22,000	
	Date	5/25/16								5/25/16	5/25/16	5/25/16							

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

	SITE 1	SITE 2	SITE 3	Г
Site Name:	Kline's Septic	Harrisburg Sewer Plant		Τ
Municipality	Salunga	Harrisburg		Т
County:	Lancaster	Dauphin		Т
DEP Permit Number:	101607	27198		Τ
Type of Material*	Liquid Biosolids	Liquid Biosolids		Т
Dry Tons Disposal:	0.22935	1.10088		Т
Gallons Disposed:	5,500	16,500		Т
Type of Disposal/Use:*	Sewer Plant	Sewer Plant		Т
Hauler Name:	Kline's Septic	Kline's Septic		Τ

\* See Instructions for explanation

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. See Pa. C.S. § 4904 (relating to unsworn falsification).

Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

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

## SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL SUPPLEMENTAL REPORT

Facility Name:	Halifax Area Water and Sev	ver Authority	
Municipality:	Halifax Borough	County: Dauphin	
Watershed:	6-C		

NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016 2016 JUNE

 $\Box$  Check here if there were no off-site removal events during the month

_			-	-	_	_	_	_	_	_	_	_	-					-
atered	- Day Tono	- LUY IUIS																0.00
idge / Biosolids Dewa	Incinerated On-site	SUILOS & V																TOTAL:
Sewage Slu	Tons dewatered																	
-site	= Dur Tons																	0.00
liosolids Hauled Off	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	TOTAL:
Sewage Sludge / B	X % Solids																	
Dewatered	Tons dewatered sludge																	
site	= Drv Tons	0.508							0.446	0.444	0.486							1.884
/ Biosolids Hauled Off-	X Conv. Factor	X 0.0000417	TOTAL:															
uid Sewage Sludge	% Solids	2.4							2.0	2.0	2.2						2.2	
Liqu	Gallons	5,075							5,350	5,325	5,300						21,050	
	Date	6/30/16							6/30/16	6/30/16	6/30/16							

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

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0.507906	1.376517	
Gallons Disposed:	5,075	15,975	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

\* See Instructions for explanation

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. See Pa. C.S. § 4904 (relating to unsworn falsification).

Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

# SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name:	Halifax Area Water and Sewer Au	uthority	
Municipality:	Halifax Borough	County: Dauphin	
Watershed:	6-C		

JULY 2016 NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016

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

atered	= Drv Tons	200-62																0.00
udge / Biosolids Dewi	X % Solids																	TOTAL
Sewage S	Tons dewatered																	
site	= Drv Tons																	0.00
<b>Biosolids Hauled Off</b>	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 001	X 0.01	TOTAL				
d Sewage Sludge / I	X % Solids																	
Dewatere	Tons dewatered sludge																	
site	= Dry Tons																	0.000
/ Biosolids Hauled Off-	X Conv. Factor	X 0.0000417	TOTAL:															
uid Sewage Sludge.	% Solids																j0/AIC#	
Liq	Gallons																0	
	Date																	

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

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	0	
Gallons Disposed:	0	0	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

\* See Instructions for explanation

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. See Pa. C.S. § 4904 (relating to unsworn falsification).

Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature: \_\_\_\_

Date:

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

## SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL SUPPLEMENTAL REPORT

Facility Name:	Halifax Area Water and Sewe	r Authority
Municipality:	Halifax Borough	County: Dauphin
Watershed:	6-C	

NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016 2016 AUGUST

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

itered		= Drv Tons																	000
udge / Biosolids Dewe	Incinerated On-site	X % Solids																	- TOTAL
Sewage SI	and	I ons dewatered																	
-site	H	= UN IONS																	0.00
Biosolids Hauled Off	V 0.04	10.0 Y	X 0.01	TOTAL															
Sewage Sludge / E	V Of Calida	X 70 JUIUS																	
Dewatered	Tons downstored shiden	i nils demarched sinde																	
site	= On Tone									0.092	0.412	0.455							0.959
Biosolids Hauled Off-	X Conv Factor		X 0.000041/	X 0.0000417	TOTAL:														
uid Sewage Sludge /	% Solids									0.4	1.9	2.1						1.5	
Liq	Gallons									5,500	5,200	5,200						15,900	
	Date									8/31/16	8/31/16	8/31/16							

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

	SITE 1	SITE 2	SITE 3	-
Site Name:	Kline's Septic	Harrisburg Sewer Plant		-
Municipality	Salunga	Harrisburg		-
County:	Lancaster	Dauphin		-
DEP Permit Number:	101607	27198		-
Type of Material*	Liquid Biosolids	Liquid Biosolids		-
Dry Tons Disposal:	0	0.9591		_
Gallons Disposed:	0	15,900		_
Type of Disposal/Use:*	Sewer Plant	Sewer Plant		-
Hauler Name:	Kline's Septic	Kline's Septic		_
				e,

\* See Instructions for explanation

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. See Pa. C.S. § 4904 (relating to unsworn falsification).

Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

Date:

à

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

## SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL SUPPLEMENTAL REPORT

Facility Name:	Halifax Area Water and Sev	/er Authority
Municipality:	Halifax Borough	County: Dauphin
Watershed:	6-C	

I

NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016 2016 SEPT.

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

itered		= Drv Tons																		0.00
udge / Biosolids Dewa	Incinerated On-site	X % Solids																		TOTAL
Sewage S	an	Tons dewatered																		
f-site	8	= Dry lons																		00.0
Biosolids Hauled Of	0.001	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	V 0.04	A 0.01	- 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 001	X 0.01	X 0.01	X 0.01	TOTAL
d Sewage Sludge /	V of Calida	A % Solids																		
Dewatere	Tone downtorod cluden	i uns dewatered studie																		
site	= Dny Tone	cini fini -																		0,000
 / Biosolids Hauled Off-	X Conv Factor		A 0.000041/	X 0.0000417	11+0000 X	X 0.0000417	TOTAL:													
 und Sewage Sludge	% Solids	0																	i0//i0#	
	Gallons																		0	
	Date																			

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

	SITE 1	SITE 2	SITE 2
Site Name:	Kline's Septic	Harrichttra Sewer Dlant	0.10
INUMICIDAIITY	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number;	101607	27198	
Type of Material*	I invited Discollate		
	ridnia Biosolias	Liquid Biosolids	
Dry Ions Disposal:	0	0	
Gallons Disposed:	0	0	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name;	Kline's Septic	Kline's Sentic	

\* See Instructions for explanation

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Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

INTAILABEL

/

## SUPPLEMENTAL REPORT SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name:	Halifax Area Water and Sewe	r Authority		
Municipality:	Halifax Borough	County:	Dauphin	1
Watershed:	6-C			Ĩ

OCTOBER 2016 NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016

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

	-	Г	Т	Т	Т	Т	Т	Т	Т	T	Т	Т	Т	Т	Т	Т	Т	-	T
atered		= Drv Tons																	0.00
idge / Biosolids Dewa	Incinerated On-site	X % Solids																	TOTAL:
Sewage Slu	and	Tons dewatered																	
site		= Dry Tons																	0.00
iosolids Hauled Off		X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	X 0.01	TOTAL:
Sewage Sludge / B	2	X % Solids																	
Dewatered	ł	I ons dewatered sludge																	
site	ŀ	= Ury Ions								0.642	0.619	0.757							2.018
/ Biosolids Hauled Off-		A CONV. FACTOR	X 0.0000417	TOTAL:															
uid Sewage Sludge	0/ Calida	SDIDC %								2.8	2.7	3.3						2.9	
Liq	Collone	CIUNID								5,500	5,500	5,500						16,500	
	Date	Calc								10/20/16	10/20/16	10/20/16							

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

ame:         Kline's Septic         Harrisburg Sewer Plant         Marrisburg Sewer Plant           pality         Salunga         Harrisburg         Earnisburg           pality         Salunga         Harrisburg         Earnisburg           pality         Salunga         Harrisburg         Earnisburg           remit Number:         101607         27198         Ernisburg           of Material*         Liquid Biosolids         Liquid Biosolids         Ernisburg           ns Disposati         0         16,500         16,500           ns Disposatic         Sewer Plant         Mine's Septic         Kinne's Septic		SITE 1	SITE 2	SITE 3	Г
pality         Salunga         Harrisburg           Marchalt         Lancaster         Dauphin           ermit Number:         101607         27198           ermit Number:         101607         27198           af Material*         Liquid Biosolids         27198           af Material*         Liquid Biosolids         27198           af Material*         Liquid Biosolids         27198           af Sisposal:         0         2.01828           af Disposal:         0         16,500           af Disposal/Use**         Sewer Plant         Sewer Plant           Name:         Kline's Septic         Kline's Septic	ame:	Kline's Septic	Harrisburg Sewer Plant		Т
y:         Lancaster         Dauphin         Lancaster         Dauphin         Lancaster         Dauphin         Lancaster         Dauphin         Lancaster         Dauphin         Dauphin	pality	Salunga	Harrisburg		Т
ermit Number:         101607         27198         101607           Material*         Liquid Biosolids         Liquid Biosolids         10           Material*         Liquid Biosolids         10         2000           In Sibposed:         0         2.01826         16,500           In Sipposed:         0         16,500         16,500           In Sipposed:         Sewer Plant         Name:         Kline's Septic	y:	Lancaster	Dauphin		Т
Material*         Liquid Biosolids         Liquid Biosolids         Liquid Biosolids           ns Disposal:         0         2.01828         16,500           S Disposal:         0         16,500         16,500           Name:         Name:         Kline's Septic         Kline's Septic	<sup>o</sup> ermit Number:	101607	27198		Т
Ins Disposal:         0         2.01828         0           s Disposed:         0         16,500         16,500           of Disposal/Use:*         Sewer Plant         Sewer Plant         Nume:           Name:         Kline's Septic         Kline's Septic         Nume:	of Material*	Liquid Biosolids	Liquid Blosolids		Т
s Disposed: 0 16,500 16,500 0 16,500 0 Disposal/Use:* Sewer Plant Sewer Plant Name: Name: Kline's Septic	ons Disposal:	0	2.01828		Т
of Disposal/Use:* Sewer Plant Sewer Plant Nine's Septic Kline's Septic	Is Disposed:	0	16.500		Т
Name: Kline's Septic Kline's Septic	of Disposal/Use:*	Sewer Plant	Sewer Plant		Т
	Name:	Kline's Septic	Kline's Septic		Т

\* See Instructions for explanation

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Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

## SUPPLEMENTAL REPORT SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name:	Halifax Area Water and Se	wer Authority	
Municipality:	Halifax Borough	County: Dauphin	
Watershed:	6-0		

NOVEMBER 2016 NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016

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

Date	Gallons	iquid Sewage Sludge % Solids	<ul> <li>A Biosolids Hauled Off-s</li> <li>X Conv. Factor</li> <li>X 0.0000417</li> <li>X 0.0000417</li> <li>X 0.0000417</li> <li>X 0.0000417</li> </ul>	site = Dry Tons	Dewatered Tons dewatered sludge	I Sewage Sludge / B X % Solids	iosolids Hauled Off X 0.01 X 0.01 X 0.01 X 0.01 X 0.01	-site = Dry Tons	Sewage S an Tons dewatered	ludge / Biosolids Dew d Incinerated On-site X % Solids	atered = Dry Tons
			X 0.0000417 X 0.0000417 X 0.0000417 X 0.0000417				X 0.01 X 0.01 X 0.01 X 0.01				
			X 0.0000417 X 0.0000417 X 0.0000417 X 0.0000417				X 0.01 X 0.01 X 0.01				
			X 0.0000417 X 0.0000417 X 0.0000417				X 0.01 X 0.01 X 0.01				
	0	i0//IC#	X 0.0000417 TOTAL:	0.000			X 0.01 X 0.01 TOTAL:	0.0		TOTAL	000

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

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	0	
Gallons Disposed:	0	0	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

\* See Instructions for explanation

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Jeffrey L. Grosser	Manager
Prepared By:	Title:

Signature:

# SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name:	Halifax Area Water and S	ewer Authority
Municipality:	Halifax Borough	County: Dauphin
Watershed:	6-C	

DECEMBER 2016 NPDES Permit No. PA 0024457 This permit will expire on May 31, 2016

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

atered	- Dur Tono	- UN IONS																	0.00
Sludge / Biosolids Dewa		SUIUS & X																	TOTAL
Sewage S	Tons dewatered	nois acwarcied																	
site	= Drv Tons	pilo: fia																	0.00
<b>3iosolids Hauled Off</b>	X 0.01	X 0.01		10.0 V	X 0.01	V 0.01	X 0.01	TOTAL:											
Sewage Sludge / E	X % Solids																		
Dewatered	Tons dewatered sludge																		
ite	= Dry Tons	0.550	0 199	00110						0.459	0.390	0.528	0.115	0.550	0.156	0.177	0.177		3,300
Biosolids Hauled Off-	X Conv. Factor	X 0.0000417	X 0.0000417		X 0.000041/	X 0.0000417	TOTAL:												
uid Sewage Sludge /	% Solids	2.4	-							2.0	1.7	2.3	0.5	2.4	0.7	0.8	0.8	1.5	
Liq	Gallons	5,500	5.300							5,500	5,500	5,500	5,500	5,500	5,350	5,300	5,300	54,250	
	Date	12/22/16	12/28/16							12/1/16	12/1/16	12/1/16	12/22/16	12/22/16	12/30/16	12/30/16	12/30/16		

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

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0.749349	2.5509975	
Galions Disposed:	10,800	43,450	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

\* See Instructions for explanation

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Prepared By; Jeffrey L. Grosser Title: Manager

Signature:



## W.G. MALDEN

P.O. BOX 196, EAST EARL, PA 17519 PHONE: (717) 768-0800 FAX: (717) 768-0802

## \*\*\*SERVICE REPORT\*\*\*

JEFFREY GROSSER HALIFAX MUNICIPAL AUTHORITY P.O. BOX 443 HALIFAX, PA 17032

SERVICE DATE: 12/13/2016 METER#: C8201 AA LOCATION: WASTEWATER - EFFLUENT SERIAL #: 12286/9404-31238-B02 MANUFACTURER: BADGER/CHESSELL RECORDER: 392 TRANSMITTER: 2210 PRIMARY: 90° V-NOTCH WEIR MAXIMUM CAPACITY: 347.2 GPM SERVICE CONTRACT: ANNUAL

### \*WORK PERFORMED\*

### CLEANED EQUIPMENT: X PRIMARY: X

\*RECORDER CALIBRATION\* CHECKED AT: 0, 50, & 100% ERROR: 0% CORRECTED ACCURACY: ± 1%

\*TOTALIZER CALIBRATION\* CHECKED AT: 0, 50 & 100% ERROR: 0% CORRECTED ACCURACY: ± 1%

## **\*TRANSMITTER CALIBRATION\***

SIMULATED HEAD RISES AND FLOW MEASUREMENTS **ERROR:** 0% **CORRECTED ACCURACY:** ±1%

**COMMENT:** PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. LEFT EQUIPMENT OPERATING PROPERLY.

### SERVICE REPRESENTATIVE: JACOB

PERSON SEEN: JEFFREY

copies: