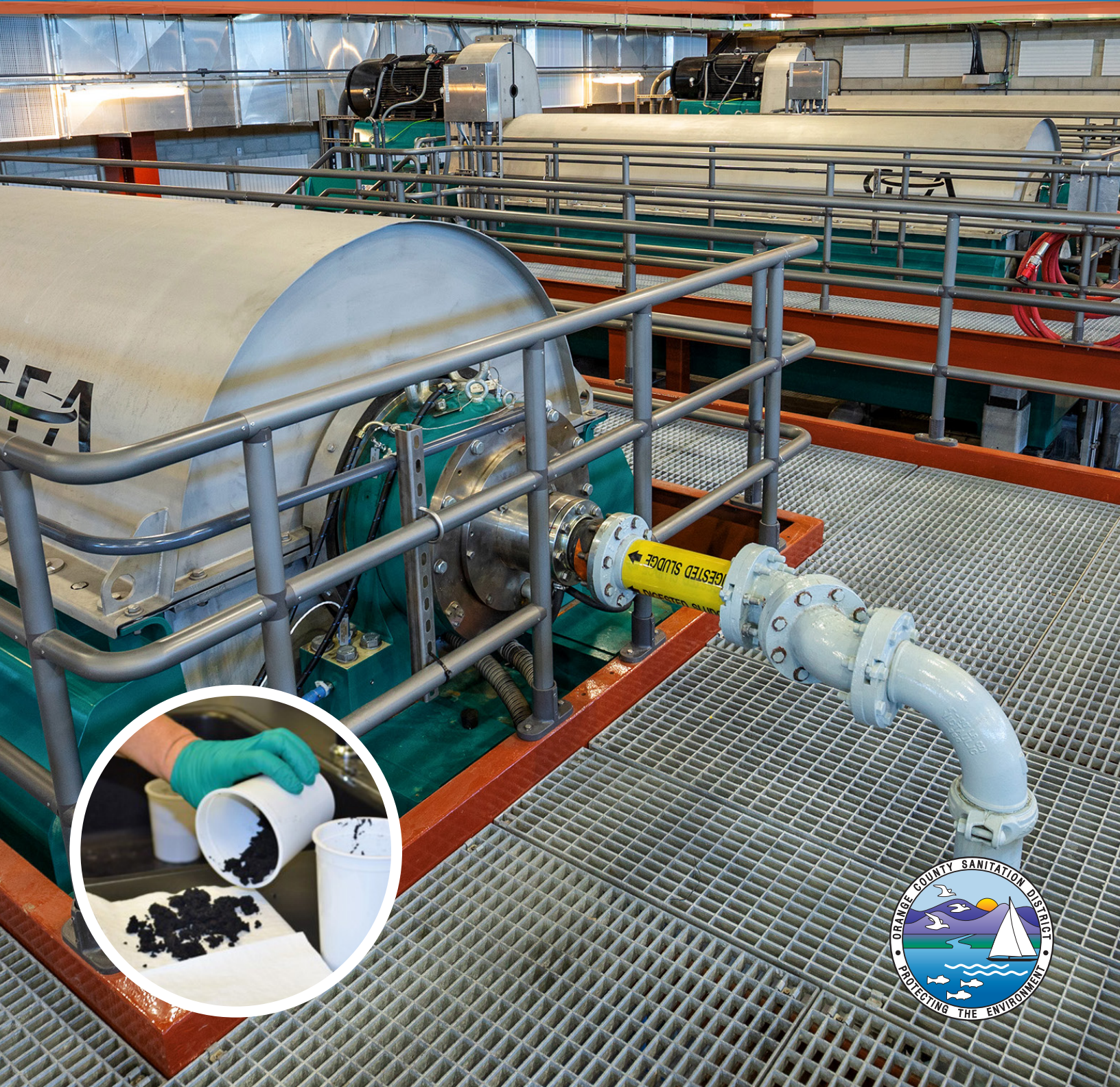


ORANGE COUNTY SANITATION DISTRICT

# BIOSOLIDS MANAGEMENT COMPLIANCE REPORT

Year 2018

EPA 40 CFR Part 503



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**Serving:**

# Orange County Sanitation District

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Villa Park

County of Orange

Costa Mesa  
Sanitary District

Midway City  
Sanitary District

Irvine Ranch  
Water District

Yorba Linda  
Water District

January 29, 2019

Hope Smythe, Executive Officer  
California Regional Water Quality Control Board, Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, CA 92501-3348

**SUBJECT:** Orange County Sanitation District's Annual Compliance Report

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Enclosed please find the Orange County Sanitation District's (OCSD) Biosolids Management Compliance Report as required under the 40 CFR Part 503 regulations, Arizona Administrative Code Article 10, and the National Pollution Discharge Elimination System (NPDES) Permit No. CA0110604, Order No. R8-2012-0035.

OCSD has uploaded this report into EPA's biosolids electronic reporting database, and submitted e-mail copies to state and local regulators. A copy of OCSD's EPA electronic report is included as Appendix D.

### **Certification Statement**

The following certifications satisfy procedural requirements as listed in section V.B.5 of the Orange County Sanitation District's NPDES Permit No. CA0110604 and 40 CFR part 503, section 503.17 for the submittal of the attached compliance report for calendar year 2018.

**NPDES permit:** *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 the 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.*

If you have any questions or comments regarding this packet of information or require any additional data, please contact Deirdre Bingman at (714) 593-7459. I can be reached at (714) 593-7508.



Ronald Coss  
Laboratory, Monitoring, and Compliance Manager

RC/DEB:bg

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**Our Mission:** *To protect public health and the environment by providing effective wastewater collection, treatment, and recycling.*

**Serving:**

# Orange County Sanitation District

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Villa Park

County of Orange

Costa Mesa  
Sanitary District

Midway City  
Sanitary District

Irvine Ranch  
Water District

Yorba Linda  
Water District

January 29, 2019

Andy Koester  
Arizona Department of Environmental Quality  
Water Permits Section  
1110 West Washington Street, 5415-B-3  
Phoenix, Arizona 85007

**SUBJECT:** Orange County Sanitation District's Annual Compliance Report

Enclosed please find the Orange County Sanitation District's (OCSD) Biosolids Management Compliance Report as required under the 40 CFR Part 503 regulations, Arizona Administrative Code Article 10, and the National Pollution Discharge Elimination System (NPDES) Permit No. CA0110604, Order No. R8-2012-0035.

OCSD has uploaded this report into EPA's biosolids electronic reporting database, and submitted e-mail copies to state and local regulators. A copy of OCSD's Arizona biosolids annual reporting form is included as Appendix E, and the EPA electronic report is included as Appendix D.

### Certification Statement

The following certifications satisfy procedural requirements as listed in Arizona Administrative Code Article 10 under section R18-9-1013 for the submittal of the attached EPA 40 CFR Part 503 Compliance Report for calendar year 2018.

***Arizona Class B:** I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

If you have any questions or comments regarding this packet of information or require any additional data, please contact Deirdre Bingman at (714) 593-7459. I can be reached at (714) 593-7508.



Ronald Coss  
Laboratory, Monitoring, and Compliance Manager

RC/DEB:bg

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Enclosure



***Our Mission:** To protect public health and the environment by providing effective wastewater collection, treatment, and recycling.*

**2018 BIOSOLIDS MANAGEMENT COMPLIANCE REPORT**

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**APPENDIX A**

- Table 1: OCSD Biosolids Wet and Dry Tonnage Distribution for 2018, Plant No. 1
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- Biosolids Monthly Compliance Report, January – December 2018

**APPENDIX B**

- OCSD’s Resource Protection Division, Pretreatment Program’s  
Annual Report, FY 2017-2018, Solids Management Program, Chapter 9

**APPENDIX C**

- Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018

**APPENDIX D**

- EPA Biosolids Annual Report Electronic Form for Reporting Year 2018, Plant No. 1
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- Arizona Department of Environmental Quality Biosolids Annual Report Form  
for Reporting Year 2018

**APPENDIX F**

- Biosolids Program History

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# **2018 BIOSOLIDS MANAGEMENT COMPLIANCE REPORT**

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**Introduction**  
**Organization and Function**  
**2018 Accomplishments**  
**Treatment Plants and Program Updates**  
**Biosolids Management**  
**Summary of Pollutants**  
**Determination of Hazardousness**  
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## Introduction

The Orange County Sanitation District (OCSD) treats and manages its biosolids, the nutrient-rich, organic matter recovered through the treatment of wastewater. OCSD's Biosolids Program consists of processes to ensure solids are treated onsite and used offsite (recycled or disposed) in accordance with all regulations and best management practices.

OCSD treats and manages its biosolids in accordance with OCSD's National Pollutant Discharge Elimination System (NPDES) Permit No. CA0110604 (NPDES), Arizona Administrative Code Title 18, Ch. 9, Article 10 (R18-9), and EPA Code of Federal Regulations Title 40 Part 503 (503).

The following sections summarize OCSD's activities and performance for the compliance-reporting period of January 1 to December 31, 2018.

## Organization and Function

OCSD is a public agency that provides wastewater collection, treatment, and recycling services for approximately 2.6 million people in central and northwest Orange County. OCSD is a special district that is governed by a Board of Directors consisting of 25 board members appointed from 20 cities, 4 special districts, and 1 representative from the Orange County Board of Supervisors. OCSD has two plants that treat wastewater from residential, commercial and industrial sources.

During this last calendar year OCSD:

- Treated an average daily sewage influent flow of **184 million gallons per day (MGD)**, down 6 MGD from last year.
- Produced **291,488 wet tons of biosolids (56,010 dry metric tons)**, which equates to an average of **799 wet tons per day of biosolids**, including digester cleanings managed as biosolids (765 tons per day excluding digester cleanings).

## 2018 Accomplishments

OCSD accomplishments this year include:

- Recycled of 100% of OCSD's biosolids, including digester cleanings.
- OCSD was awarded with the National Association of Clean Water Agencies (NACWA) Platinum Award. NACWA is the nation's leader in legislative, regulatory and legal advocacy on the full spectrum of clean water issues, as well as a top technical resource for water management, sustainability and ecosystem protection interests. See [OCSD's Awards and Honors](#) webpage for many other annual recognitions throughout the agency.

- Project P1-101 began commissioning dewatering centrifuges in November 2018, as featured on the cover of this report.
- OCSD cleaned eight (8) digesters at both plants.
- OCSD’s Research Program reviews and funds research projects. The Program includes an ongoing iTAG (international Technology Approval Group) process. The research evaluations and results are summarized in their annual reports ([ocsd.com/research](http://ocsd.com/research)).



OCSD started up P1-101 dewatering centrifuges in November 2018

- As part of the implementation of the 2017 Biosolids Master Plan and as included in the General Manager’s Work Plan goal for Fiscal Year 2017-18, OCSD issued a request for proposal for a Professional Design Services Agreement for the Interim Food Waste Receiving Facility Project.

## Treatment Plants and Program Updates

Reclamation Plant No. 1, located in the city of Fountain Valley, treated an average of 120 MGD of wastewater. Treatment Plant No. 2, located in the City of Huntington Beach, treated an average of 64 MGD of wastewater during the reporting period.

OCSD provided an average of 119 MGD to the Ground Water Replenishment System (GWRS) and Green Acres Project (GAP), which purify OCSD’s secondary treated water from Plant No. 1 to meet drinking water standards for reuse. The GWRS is a joint project of OCSD and the Orange County Water District (OCWD). GWRS is the world’s largest system for indirect potable reuse. The system takes highly-treated wastewater that would have previously been discharged into the Pacific Ocean and purifies it using a three-step advanced treatment process. OCWD’s GAP is a water reuse effort that provides recycled water for landscape irrigation at parks, schools and golf courses; industrial uses, such as carpet dyeing; toilet flushing; and power generation cooling.

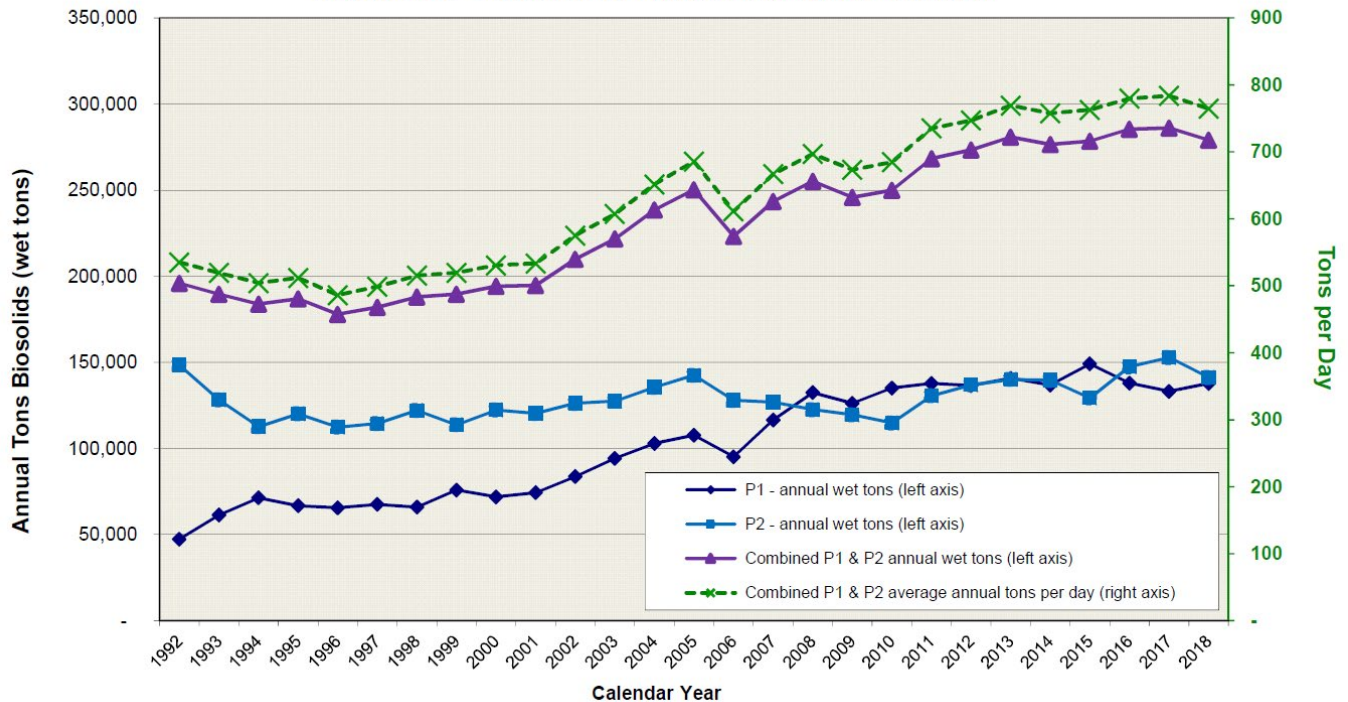
Plant No. 1 diverted an average of approximately 60,000 cubic feet per day of primary sludge from Plant No. 1 to Plant No. 2 via the inter-plant sludge line. The diversion is anticipated to end after Plant No. 1’s centrifuges come online.

OCSD’s plants both produce anaerobically digested biosolids to provide compliance with the “Class B Pathogen Reduction” and “Vector Attraction Reduction” definition for “Class B” biosolids as defined in 40 CFR Part 503.32(b)(3) (PSRP 3) and 503.33(b)(1), respectively. In addition, Tule Ranch/AgTech’s standard operating procedure includes incorporation within 6 hours which meets 40 CFR Part 503.33(b)(10) requirement if OCSD’s treatment plants fail to meet the Vector Attraction Reduction standard.

OCSD's biosolids are digested for at least 15 days at a minimum of 95 degrees Fahrenheit, with a volatile solids destruction of at least 38%. The resulting biosolids averaged about 19% total solids at Plant No. 1 and 21% total solids at Plant No. 2. More detailed data, including monthly averages, annual totals and analytical results, can be viewed in Figure 1 and Table 2 below, as well as in Appendices A, B, C, and D.

Digesters 6 and 8 were cleaned at Plant No. 1, and Digesters C, L, N, P, R, and T were cleaned at Plant No. 2 in 2018.

**Figure 1: Biosolids Production History**  
 January 1992 – December 2018 (not including digester cleanings)



OCSD is commissioning new facilities that will replace the belt filter presses with new dewatering centrifuge facilities at Plant No. 1 and at Plant No. 2. The total percent solids of dewatered biosolids is anticipated to increase significantly in 2019, resulting in approximately one-third fewer wet-weight solids and biosolids trucks to manage. The Plant No. 1 project is also installing pre-digestion centrifuges to thicken primary and secondary solids, so the existing dissolved air floatation thickening units will be decommissioned. Additionally, the project is rehabilitating the Plant No. 1 truck loading facility. Both plants' projects are anticipated to be complete in 2019.

The Irvine Ranch Water District (IRWD) discharges its untreated solids (sludge) to OCSD. IRWD is currently constructing their own solids treatment facility and plans to cease sending their solids to OCSD when IRWD completes start-up of new solids handling facilities, now estimated for years 2019-2020. This cessation is anticipated to reduce Plant No. 1's influent solids by ten to fifteen percent.

## Biosolids Management

Biosolids produced at OCSD’s two treatment facilities were managed by the contractors listed below in Table 1.

<b>Table 1- Biosolids Management Contractors</b>	
<b>Tule Ranch / Ag-Tech</b> 4324 E. Ashlan Ave. Fresno, CA 93726 Contact: Shaen Magan Phone: (559) 970-9432 Email: kurt@westexp.com	<b>Synagro - Nursery Products</b> PO Box 1439 Helendale, CA 92342 Contact: Venny Vasquez Phone: (760) 265-5210 Email: vvasquez@SYNAGRO.com
<b>Liberty Compost</b> 12421 Holloway Rd. Lost Hills, CA 93249 Contact: Patrick McCarthy Phone: (661) 797-2914 Email: patrickmccarthy@mccarthyfarms.com	<b>Synagro – Arizona Soils</b> 5615 S. 91st Avenue Tolleson, AZ 85353 Contact: Craig Geyer Phone: (623) 936-6328 Email: CGeyer@SYNAGRO.com
<b>Inland Empire Regional Composting Authority</b> 12645 6th Street Rancho Cucamonga, CA 91739 Contact: Jeff Ziegenbein Phone: (909) 993-1981 Email: jziegenbein@ieua.org	

These biosolids management contractors provide OCSD with diversification and reliability and are therefore important partners to OCSD. Contractors submit their annual compliance reports directly to EPA, in accordance with OCSD’s NPDES permit requirements. For this reporting period, OCSD’s biosolids were beneficially reused in the areas following in Table 2. More detailed breakdowns are available in Appendices A and D.

**Table 2- Biosolids Managed Tonnage Distribution**

Quantity Generated	Plant No. 1	Plant No. 2	Total	Relative %
Synagro - Nusery Products CA - (compost) (wet tons)	85,748	17,763	103,511	35.5%
Synagro - Nusery Products CA - (compost) (dry metric tons)	14,608	4,688	19,297	
Synagro AZ Soils (compost) (wet tons)	2,241	5,747.38	7,988	2.7%
Synagro, AZ Soils (compost) (dry metric tons)	840	2,788	3,628	
Liberty Compost CA (wet tons)	34,693	14,828	49,521	17.0%
Liberty Compost CA (dry metric tons)	5,817	2,824	8,641	
Inland Empire Regional Composting (wet tons)	0	13,038	13,038	4.5%
Inland Empire Regional Composting (dry metric tons)	0	2,483	2,483	
Tule Ranch AZ (land application) (wet tons)	17,694	99,737	117,431	40.3%
Tule Ranch AZ (land application) (dry metric tons)	2,939	19,021	21,960	
<b>Total Wet Tons</b>	<b>140,375</b>	<b>151,113</b>	<b>291,488</b>	<b>100%</b>
<b>Total Dry Metric Tons</b>	<b>24,204</b>	<b>31,805</b>	<b>56,010</b>	

## Summary of Pollutants

Since 1976, OCSD's Pretreatment Program has been effective in lowering the average mass of metals discharged to the marine environment by 98% and the total mass of metals in the influent sewage by 86%, thereby ensuring OCSD's biosolids can be recycled to farm fields with low metals concentrations. Furthermore, OCSD's influent wastewater meets drinking water standards for metals. Appendix B contains the biosolids chapter of OCSD's Pretreatment Program Annual Report ([ocsd.com/SCAnnual](http://ocsd.com/SCAnnual), Chapter 9).

OCSD's monthly Biosolids Monthly Compliance Reports (Appendix A) compare the concentration limits of the pollutants listed in 40 CFR 503 to OCSD's average biosolids concentrations for each plant. The average concentrations of all pollutants in OCSD's biosolids are typically an order of magnitude below the conservative *Table-1 Ceiling Limits* and *Table 3 Exceptional Quality Limits* found in 40 CFR Part 503, which were based on an extensive health risk assessment to ensure that biosolids are safe for recycle to build healthy soil.

In accordance with OCSD's NPDES permit, biosolids are also tested semi-annually for all pollutants listed under Section 307(a) of the Clean Water Act. Appendix C contains the summary of the priority pollutants analyzed in the plants' biosolids.

## Determination of Hazardousness

Generally speaking, OCSD's biosolids are several orders of magnitude below state and federal hazardous waste limits. However, OCSD performs semi-annual testing of an extensive list of organic and inorganic compounds to verify the continued non-hazardousness of our biosolids.

### Legal Definitions

OCSD's 2012 Ocean Discharge NPDES permit requires OCSD to test its biosolids annually for hazardousness in accordance with 40 CFR Part 261. Hazardous waste is also defined under the provisions of California Code of Regulations, Title 22, Chapter 11, Article 5, and Arizona Revised Statutes, Title 49, Chapter 5, Article 2.

### Determination

OCSD's biosolids are determined to be non-hazardous based on the following:

- OCSD's biosolids are not ignitable, corrosive, reactive, nor toxic in accordance with the federal regulatory definitions in 40 CFR Part 261.
- OCSD's biosolids are tested at twice annually for the determination of hazardousness. OCSD's biosolids' pollutant concentrations are significantly below the state and federal maximum contaminant concentrations for determining a hazardous waste. See OCSD's biosolids monitoring data in Appendix C, Summary of Priority Pollutants and Trace Constituents Analysis.

## **Biosolids Management System**

OCSD continues to utilize a biosolids management system approach to effectively administer its biosolids program. The following sections highlight OCSD's continued commitment to the biosolids management system.

### Communications

OCSD has continued transparent communications during this reporting period.

- Monthly compliance reports and data are posted online ([ocsd.com/nani](https://www.ocsd.com/nani)).
- Two interested party newsletters were emailed and posted on OCSD's website (<https://www.ocsd.com/education/biosolids-program/e-newsletter-updates>).
- OCSD shared timely updates including the annual compliance report, new biosolids videos, updated OCSD resources such as the biosolids allocation map and Biosolids Contractor Requirements document, as well as when a biosolids compliance audit request for proposals was announced.

### Contractor Oversight Program

OCSD has continued our strong contractor oversight program:

- No NOVs (Notice of Violations) for OCSD's active biosolids contractors;
- Performed 12 contractor site inspections;
- Addressed and closed out 4 contractor issues;
- Addressed and closed out one inspection finding (one was reopened and is currently being addressed);
- Addressed and closed out 3 odor complaints (of which 2 were unfounded);
- Performed 55 hauling inspections, which reached 42 out of 52 active drivers (81%) this year. There are 11 active drivers (21%) who have earned a place on OCSD's "Honor Roll" for excellence in their truck cleanliness, knowledge of biosolids and emergency protocol by successfully passing 3 consecutive hauler inspections; and
- One contractor offsite incident occurred in January 2018, in which an estimated of 5 tons of biosolids were released and recovered. The final report was submitted to Regional Water Control Board having jurisdiction in the area.

### Goals and Targets

The 2014 – 2019 Five Year Strategic Plan is a guiding document that provides a framework that directs our work. Every two years, the Strategic Plan will be reassessed, updated, and submitted for approval by the Board of Directors. The 2017 Strategic Plan Update began with a consultant retained by OCSD conducting confidential interviews with interested Board members to identify issues or concerns. The Strategic Plan Update continued with a workshop and presentation of two issue papers. The Update concluded with two Strategic Goals being identified as completed, no new goals being adopted, and no modifications being made to OCSD's levels of service. See [www.ocsd.com/5yearstrategicplan](http://www.ocsd.com/5yearstrategicplan) or the OCSD Strategic Planning website (<https://www.ocsd.com/services/strategic-planning>).

### Biosolids Program Policy

The Biosolids Program Policy, originally adopted in 1999 and amended several times over the years, is a policy committing the agency to support biosolids beneficial reuse (organics recycling). The most recent commitments, OCSD Resolution 13-03

([www.ocsd.com/policy](http://www.ocsd.com/policy)), and OCSD’s performance relative to these commitments are reported below.

<b>Table 3 – Policy Performance</b>	
<b>Policy Commitment</b>	<b>2018 Performance</b>
<p>1. Commit to sustainable biosolids program.</p> <p>Support the recycling of biosolids.</p>	<p>OCSD has demonstrated effective pretreatment, water and solids treatment operations, compliance, capital improvements, technology research and planning, and biosolids contractor oversight programs.</p> <p>See this year’s accomplishments at the beginning of this report.</p>
<p>2. Strive to balance financial, environmental, and societal considerations when making biosolids decisions.</p>	<p>On a day-to-day basis, OCSD is weighing these considerations and looking out for issues that would alter the balance. For instance, allocating our biosolids to our diverse locations considers this “triple bottom line,” but also considers contractors performance and the 2017 Master Plan’s Ten Tenets.</p>
<p>3. Utilize a biosolids management system to maintain a sustainable and publicly supported biosolids program.</p>	<p>OCSD continues to maintain our biosolids management system as outlined in this section. OCSD is currently listed as a Graduate of the National Biosolids Partnership’s certification program (<a href="http://www.biosolids.org">www.biosolids.org</a>).</p>
<p>4. Diversify portfolio of offsite biosolids management options with multiple biosolids contractors, markets, facilities, and maintaining fail-safe back-up capacity of at least 100% of its daily biosolids production.</p>	<p>See Table 2 for breakdown of our active biosolids management options.</p> <p>See Ten Tenets reporting table below.</p> <p>OCSD maintained more than 10 times (1000%) our daily biosolids production in failsafe facility capacity. OCSD also maintained about 33% extra hauling capacity.</p>
<p>5. Research and implement ways to reduce the volume of biosolids at the treatment plants to minimize the need for offsite management.</p>	<p>As mentioned in the “Treatment Plants and Program Updates” section above, OCSD’s production of biosolids is anticipated to drop by about one-third once the centrifuges are fully commissioned in 2019.</p> <p>OCSD’s Research program actively seeks opportunities for process area improvements, including solids.</p> <p>OCSD is continuing to monitor the Supercritical Water Oxidation technology (<a href="http://www.scfi.eu">www.scfi.eu</a>) and the progress towards a feasible pilot plant.</p>
<p>6. Support continuing research of biosolids benefits and potential safety concerns.</p>	<p>OCSD continued our support of the Northwest Biosolids’ library (<a href="http://www.nwbiosolids.org">www.nwbiosolids.org</a>). The library contains references to over 2,600 biosolids-related research articles references.</p>

Table 3 – Policy Performance	
Policy Commitment	2018 Performance
	<p>Northwest Biosolids sends a monthly theme-based, relevant summary of research to its members, so we can easily digest pertinent scientific information and better communicate with interested parties. Northwest Biosolids also has a free monthly e-Bulletin for non-members. In 2015, based on extensive research, the Northwest Biosolids association published <a href="#">a public-friendly risk brochure explaining</a> how long it takes for workers and other “exposed populations” to accumulate a dose-equivalent of pharmaceuticals or personal care products from exposure to biosolids (most in the thousands to hundred-thousands of years). This publication remains one of the best references to address emerging constituents of concern.</p> <p>OCSD updated our outreach video in 2018, and included expanded information on the safety of biosolids. Biosolids 2-part video. <a href="#">Part 1:</a> How biosolids are created from sewage treatment plant solids, OCSD’s biosolids production, and where OCSD’s biosolids are recycled. <a href="#">Part 2:</a> Biosolids benefits and safety and the onsite processes used to land apply and compost biosolids.</p>
7. Demonstrate the benefits of biosolids compost by using it at the District’s facilities.	<p>OCSD maintains compost piles at each plant. This compost is available to our employees and our landscape contractor to demonstrate the benefits of compost. OCSD encourages employees to share their compost use photos.</p> <p>OCSD continues to long-term monitoring of our composted biosolids demonstration planter that contains drought-tolerant and native species.</p>

Ten Tenets of OCSD’s Biosolids Management Plan

Read more on OCSD’s Ten Tenets and the Biosolids Master Plan at [ocsd.com/bmp](http://ocsd.com/bmp).

Table 4 – Ten Tenets of Biosolids Management Performance	
Policy Commitment	2018 Performance
1. Allocate up to 50 percent of biosolids per biosolids contractor.	Each contractor received <b>less than 50%</b> of OCSD’s biosolids. See Table 2 for relative tonnage distribution this year. See OCSD’s current map of where OCSD’s biosolids are allocated at <a href="http://ocsd.com/map">ocsd.com/map</a> .
2. Allocate up to 50 percent of biosolids to each geographic end use market.	<p><b>Sixty percent (60%)</b> of OCSD’s biosolids were turned into <b>compost at four (4) regional facilities</b>. Combined, these facilities’ distributed over <b>246,740 tons</b> of composted biosolids in the following geographic markets:</p> <ul style="list-style-type: none"> <li>• 39.5% (net <b>24%</b> including land application biosolids below) to Riverside County,</li> <li>• 35% (net <b>21%</b>) to Kern County,</li> <li>• 8.9% (net <b>5.3%</b>) to Los Angeles County,</li> <li>• 7.5% (net <b>4.5%</b>) to San Bernardino County,</li> <li>• 5.3% (net <b>3.2%</b>) to Arizona, Maricopa County,</li> </ul>



Table 4 – Ten Tenets of Biosolids Management Performance	
Policy Commitment	2018 Performance
	<ul style="list-style-type: none"> <li>• 2.2% (net <b>1.3%</b>) to San Diego,</li> <li>• 1.5% (net <b>0.9%</b>) to Orange County, and</li> <li>• 0.2% (net <b>0.1%</b>) Madera County.</li> </ul> <p>The remaining <b>40%</b> of OCSD’s biosolids were used to raise crops, producing <b>2,316 tons of seed and ethanol crops for use in Arizona.</b></p>
3. Maintain at least three (3) different biosolids management facilities at any time.	OCSD maintained <b>five (5)</b> different management facilities. See Table 2 for relative tonnage distribution this year. See OCSD’s current map of where OCSD’s biosolids are allocated at <a href="http://ocsd.com/map">ocsd.com/map</a> .
4. Maintain at least two (2) different biosolids management practices at any time.	OCSD maintained <b>two (2)</b> different management practices, composting and land application (direct farming of feed crops with biosolids). See Table 2 for relative tonnage distribution this year. See OCSD’s current map of where OCSD’s biosolids are allocated at <a href="http://ocsd.com/map">ocsd.com/map</a> .
5. Maintain at least two (2) different hauling companies within the biosolids management portfolio.	OCSD and its biosolids management contractors utilized <b>three (3)</b> different hauling companies (GIC, Tule Ranch/Western Express, and Denali).
6. Maintain at least 200 percent contingency capacity at end use sites.	OCSD maintained an average of about <b>1100%</b> contingency capacity.
7. Maintain 20 percent fail-safe hauling capacity.	OCSD maintained an average of <b>33%</b> fail-safe hauling capacity.
8. Track and encourage development of emerging markets and/or end uses for biosolids, especially for local end use options.	<p>OCSD entered discussions with Anaergia, who is planning to redevelop a Rialto facility to receive food waste and biosolids to produce electricity and biochar. The facility is expected to come online in 2020. OCSD also had discussions with potential partners in Imperial County and are tracking Irvine Ranch Water District’s dryer and Los Angeles County Sanitation District’s composting facility in Kings County.</p> <p>In 2018, OCSD’s composting partner, Inland Empire Regional Composting Authority (IERCA), expanded their buy-back program to OCSD member cities and agencies. This program offers discounted compost to incentivize the local use of compost. IERCA provided bagged compost for OCSD’s “State of the District” event, and the two agencies’ staff informed attendees of the need to buy-back locally-sourced organics.</p>
9. Allocate up to 10 percent of total biosolids production for participation in emerging markets, including	In 2018, OCSD added Anaergia as a location to our hauling contract (see previous item also). <b>No tonnage</b> was allocated to emerging markets or pilots this year, however, OCSD is aware and monitoring several potential opportunities for future allocation of OCSD’s biosolids.

<b>Table 4 – Ten Tenets of Biosolids Management Performance</b>	
<b>Policy Commitment</b>	<b>2018 Performance</b>
participation in pilot or demonstration projects.	
10. Explore partnerships with area soil blenders to allow incorporation of OCSD’s Class A product into local markets.	OCSD is following the work being done by San Francisco Public Utilities Commission to research and develop their temperature-phase anaerobically digested biosolids soil blend product research, recipe, and roll-out the product to local markets. OCSD’s efforts will follow suit at the appropriate time since OCSD facilities are expected to be commissioned in about 2030.



**OCSD Plant No. 2 Biosolids Demonstration Planter**

## **APPENDIX A**

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**Table 1: OCSD Biosolids Wet and Dry Tonnage Distribution for 2018, Plant No. 1**  
**Table 2: OCSD Biosolids Wet and Dry Tonnage Distribution for 2018, Plant No. 2**  
**Biosolids Monthly Compliance Report, January – December 2018**

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## Table 1: OCSD Biosolids Wet and Dry Tonnage Distribution for 2018

### Reclamation Plant No. 1, Fountain Valley, CA

Process Assessment	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual Average		
Biosolids Total Solids (%)	18	18	19	18	18	19	20	19	19	19	18	17	19		
Quantity Generated	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total		
Synagro - Nursery Products CA - compost (wet tons)	8,840	7,924	8,823	7,558	732	4,265	8,303	8,115	7,387	7,837	7,756	7,605	85,145	Total Wet Tons 140,375	
Synagro - Nursery Products CA - compost (dry metric tons)	1,443	1,294	1,520	1,234	119	735	1,506	1,398	1,273	1,351	1,266	1,173	14,312.7		
Synagro-AZ Soils-compost (wet tons)	0	0	0	0	0	0	98	0	0	0	267	348	713		
Synagro - AZ Soils-compost (dry metric tons)	0	0	0	0	0	0	18	0	0	0	44	54	115.1		
Tule Ranch AZ - land application (wet tons)	0	0	0	408	10,272	5,555	0	0	125	372	444	518	17,694		
Tule Ranch AZ - land application (dry metric tons)	0	0	0	67	1,677	957	0	0	22	64	73	80	2,938.9		
Liberty Compost CA (wet tons)	4,163	3,280	3,676	2,780	885	2,075	3,144	2,794	2,606	2,881	2,926	3,483	34,693		
Liberty Compost CA (dry metric tons)	680	536	634	454	144	358	570	481	449	496	478	537	5,816.6		
Inland Empire Regional Composting (wet tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Inland Empire Regional Composting (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
<b>Total Wet Tons</b>	<b>13,003</b>	<b>11,204</b>	<b>12,499</b>	<b>10,745</b>	<b>11,889</b>	<b>11,895</b>	<b>11,545</b>	<b>10,908</b>	<b>10,119</b>	<b>11,089</b>	<b>11,393</b>	<b>11,955</b>	<b>138,244</b>		
<b>Total Dry Metric Tons</b>	<b>2,123</b>	<b>1,829</b>	<b>2,154</b>	<b>1,754</b>	<b>1,941</b>	<b>2,050</b>	<b>2,094</b>	<b>1,880</b>	<b>1,744</b>	<b>1,911</b>	<b>1,860</b>	<b>1,843</b>	<b>23,183.3</b>		
Digester Cleanings	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total		
			Dig 8	Dig 8 & 6	Dig 6										
Digester Cleaning Total Solids Synagro AZ Soils (average)			46.0%	53.3%	57.9%										
Synagro AZ Soils (compost) (wet tons) (digester cleanings only)	0	0	349	949	229	0	0	0	0	0	0	0	1,527	Dry Tons 24,204.1	
Synagro, AZ Soils (compost) (dry metric tons) (digester cleanings only)	0	0	147	459	120	0	0	0	0	0	0	0	725.1		
Digester Cleaning Total Solids Synagro Nursery Products (average)			48.1%	55.8%	56.4%										
Synagro Nursery Products (compost) (wet tons) (digester cleanings only)	0	0	146	384	74	0	0	0	0	0	0	0	603		
Synagro, Nursery Products (compost) (dry metric tons) (digester cleanings only)	0	0	64	194	38	0	0	0	0	0	0	0	295.7		
<b>Total Wet Tons (Biosolids plus Digester Cleanings)</b>	<b>13,003</b>	<b>11,204</b>	<b>12,994</b>	<b>12,079</b>	<b>12,192</b>	<b>11,895</b>	<b>11,545</b>	<b>10,908</b>	<b>10,119</b>	<b>11,089</b>	<b>11,393</b>	<b>11,955</b>	<b>140,375</b>		
<b>Total Dry Metric Tons (Biosolids plus Digester Cleanings)</b>	<b>2,123</b>	<b>1,829</b>	<b>2,364</b>	<b>2,407</b>	<b>2,099</b>	<b>2,050</b>	<b>2,094</b>	<b>1,880</b>	<b>1,744</b>	<b>1,911</b>	<b>1,860</b>	<b>1,843</b>	<b>24,204</b>		

**Table 2: OCSD Biosolids Wet and Dry Tonnage Distribution for 2018**  
**Wastewater Treatment Plant No. 2, Huntington Beach, CA**

Process Assessment	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual Average		
Biosolids Total Solids (%)	21	20	22	21	21	21	22	21	21	21	21	20	21		
Quantity Generated													Total		
	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec			
Synagro - Nusery Products CA - compost (wet tons)	0	177	101	832	8,330	3,898	126	202	0	25	0	0	13,692	Total Wet Tons 151,113	
Synagro - Nusery Products CA - compost (dry metric tons)	0	32	20	158	1,587	743	25	38	0	5	0	0	2,608.4		
Synagro-AZ Soils-compost (wet tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Synagro - AZ Soils-compost (dry metric tons)	0	0	0	0	0	0	0	0	0	0	0	0	0.0		
Tule Ranch AZ - land application (wet tons)	9,428	8,148	10,131	9,514	181	4,176	10,003	10,352	9,441	9,748	9,330	9,285	99,737		
Tule Ranch AZ - land application (dry metric tons)	1,796	1,478	2,022	1,812	34	795	1,996	1,972	1,798	1,857	1,777	1,684	19,021.4		
Liberty Compost CA (wet tons)	807	1,590	782	1,112	4,040	1,717	607	1,061	1,112	989	583	428	14,828		
Liberty Compost CA (dry metric tons)	154	303	149	212	770	327	116	202	212	188	111	82	2,824.3		
Inland Empire Regional Composting (wet tons)	1,381	1,456	1,283	991	1,090	933	1,053	1,124	950	1,096	927	752	13,038		
Inland Empire Regional Composting (dry metric tons)	263	277	244	189	208	178	201	214	181	209	176	143	2,483.3		
<b>Total Wet Tons</b>	<b>11,617</b>	<b>11,371</b>	<b>12,298</b>	<b>12,450</b>	<b>13,641</b>	<b>10,724</b>	<b>11,789</b>	<b>12,739</b>	<b>11,503</b>	<b>11,858</b>	<b>10,840</b>	<b>10,465</b>	<b>141,295</b>		
<b>Total Dry Metric Tons</b>	<b>2,213</b>	<b>2,090</b>	<b>2,435</b>	<b>2,371</b>	<b>2,598</b>	<b>2,043</b>	<b>2,337</b>	<b>2,426</b>	<b>2,191</b>	<b>2,259</b>	<b>2,065</b>	<b>1,909</b>	<b>26,937.3</b>		
Digester Cleanings													Total		
	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec			
	Dig C & L	Dig L	Dig L		Dig R	Dig R		Dig T	Dig P	Dig P	Dig P & N				
Digester Cleaning Total Solids															
Synagro AZ Soils (average)	40.3%	55.8%	60.0%		24.2%	55.4%		53.9%	52.3%	60.7%	56.0%				
Synagro AZ Soils (compost) (wet tons) (digester cleanings only)	444	917	257	0	373	762	0	514	313	1400	768	0	5,747	Total Dry Tons 31,805.4	
Synagro, AZ Soils (compost) (dry metric tons) (digester cleanings only)	160	464	140	0	82	383	0	251	149	771	390	0	2,788.2		
Digester Cleaning Total Solids															
Synagro Nursery Products (average)	48.6%	55.7%	60.2%		25.3%	56.5%		58.2%	55.7%	60.7%	57.3%				
Synagro Nursery Products (compost) (wet tons) (digester cleanings only)	244	603	117	0	69	579	0	671	244	992	552	0	4,071		
Synagro, Nursery Products (compost) (dry metric tons) (digester cleanings only)	88	305	64	0	16	297	0	354	123	547	287	0	2,079.8		
<b>Total Wet Tons (Biosolids plus Digester Cleanings)</b>	<b>12,305</b>	<b>12,890</b>	<b>12,671</b>	<b>12,450</b>	<b>14,083</b>	<b>12,065</b>	<b>11,789</b>	<b>13,924</b>	<b>12,060</b>	<b>14,250</b>	<b>12,160</b>	<b>10,465</b>	<b>151,113</b>		
<b>Total Dry Metric Tons (Biosolids plus Digester Cleanings)</b>	<b>2,461</b>	<b>2,859</b>	<b>2,639</b>	<b>2,371</b>	<b>2,696</b>	<b>2,722</b>	<b>2,337</b>	<b>3,031</b>	<b>2,463</b>	<b>3,576</b>	<b>2,741</b>	<b>1,909</b>	<b>31,805</b>		

FOOTNOTE: Digester cleanings percent total solids are sampled for each truck to calculate the dry metric tons for each truckload. The total dry metric tons reported above are based on the totals of each truckload's dry metric tons and may therefore vary slightly compared multiplying the average percent total solids times the total wet tons and conversion factor of 0.907.



## Biosolids Monthly Compliance Report

**Facility Name:** Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

**Monitoring Period:** January 1- 31, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

**Sampling date(s):** 01/23/18,01/30/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min<sup>1</sup></b>	0.74	12 DNQ	3.3	36	420	12	14	36	<3.1	580	6,300	59,000	65,000	7.9	18	58
<b>Plant 1 Avg</b>	0.72	10 DNQ	2.6 DNQ	31	340	10	11 DNQ	33	<3.1	510	6,200	55,000	61,000		18	
<b>Plant 2 Max/Min<sup>1</sup></b>	0.84	14	5.6	45	430	13	14	32	<2.7	680	5,500	47,000	52,000	8.0	21	63
<b>Plant 2 Avg</b>	0.81	13 DNQ	5.4	41	390	12	13	31	<2.7	650	5,500	47,000	52,000		21	
<b>Table 1 (Max/Min)<sup>1</sup></b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)<sup>2</sup></b>	21	Out of Service	Out of Service	20	20	21	21	21	21	21	21
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	Out of Service	98	98	97	97	97	97	97	97

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)<sup>2</sup></b>	24	28 <sup>3</sup>	23	Out of Service	23	23	Out of Service	23	24	24 <sup>4</sup>	25	23	23	23	22	22	23	24
<b>Minimum Temperature (Min 95 °F)</b>	97	100	98	Out of Service	100	99	Out of Service	100	101	98	98	98	99	98	100	98	97	98



# Biosolids Monthly Compliance Report

**Facility Name:** Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

**Monitoring Period:** January 1- 31, 2018

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

<sup>1</sup> Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

<sup>2</sup> MCRT based on a 15-Day Rolling Average.

<sup>3</sup> Digester C was taken out of service for cleaning and maintenance on January 2, 2018.

<sup>4</sup> Digester L was taken out of service for cleaning and maintenance on January 23, 2018.

## Certifications:

**NPDES permit:** *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 the 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.*

**503 Class B:** *I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

**Arizona Class B:** *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

4/6/2018

4/4/2018

X

James Spears                      jspears@ocsd.com  
Operations Manager              (714)593-7081  
Signed by: Spears, Jim

X

Ronald Coss                      rcoss@ocsd.com  
Lab, Mon. & Compliance Mgr    (714)593-7508  
Signed by: Coss, Ronald





## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: February 1- 28, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

Sampling date(s): 02/20/18, 02/27/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min*</b>	1.0	14 DNQ	3.9	39	510	14	16	39	<3.3	620	6,700	56,000	63,000	7.8	17	55
<b>Plant 1 Avg</b>	0.89	12 DNQ	3.4	37	480	13	15	37	<3.3	620	6,500	55,000	61,000		18	
<b>Plant 2 Max/Min*</b>	0.96	13 DNQ	7.7	59	510	16	16	38	<2.9	770	6,300	58,000	63,000	8.0	19	48
<b>Plant 2 Avg</b>	0.79	13 DNQ	7.3	54	510	16	16	38	<2.9	750	5,900	50,000	56,000		20	
<b>Table 1 (Max/Min)*</b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	22	Out of Service	Out of Service	21	21	22	22	22	22	22	22
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	Out of Service	98	98	97	97	98	97	98	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	21	Out of Service	22	Out of Service	21	21	Out of Service	20	21	Out of Service	22	21	21	21	21	21	21	22
<b>Minimum Temperature (Min 95 °F)</b>	96	Out of Service	96	Out of Service	96	96	Out of Service	100	100	Out of Service	98	98	97	98	100	98	98	96



## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: February 1- 28, 2018

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

\* Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

\*\* MCRT based on a 15-Day Rolling Average.

### Certifications:

**NPDES permit:** *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 the 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.*

**503 Class B:** *I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

**Arizona Class B:** *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

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### Reviewers:

Cindy Vellucci  
Cindy Vellucci (May 1, 2018)

Deirdre Bingman  
Deirdre Bingman (May 1, 2018)

Richard V. Esch

Margil Jimenez  
Margil Jimenez (May 4, 2018)



## Biosolids Monthly Compliance Report

**Facility Name:** Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

**Monitoring Period:** March 1- 31, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

**Sampling date(s):** 03/20/18, 03/27/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min*</b>	1.3	11 DNQ	1.8 DNQ	29	320	9.5	10 DNQ	36	<3.1	480	6,700	65,000	72,000	7.9	18	57
<b>Plant 1 Avg</b>	0.98	10 DNQ	1.7 DNQ	27	320	8.9	10 DNQ	32	<3.1	470	6,400	56,000	62,000		19	
<b>Plant 2 Max/Min*</b>	0.77	15	4.4	44	440	10	16	37	<2.7	650	5,500	53,000	58,000	8.0	21	64
<b>Plant 2 Avg</b>	0.74	12 DNQ	4.1	39	380	10	14	33	<2.7	590	5,500	43,000	48,000		22	
<b>Table 1 (Max/Min)*</b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	23	Out of Service	Out of Service	23	23	24	24	23	23	23	23
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	Out of Service	98	98	97	98	98	98	98	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	19	Out of Service	18	Out of Service	18	18	Out of Service	18	18	Out of Service	19	18	18	18	18	18	21	19
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	99	Out of Service	97	99	Out of Service	100	101	Out of Service	98	97	97	99	99	98	99	98

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

\* Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

\*\* MCRT based on a 15-Day Rolling Average.





## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: April 1- 30, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

Sampling date(s): 04/17/18, 04/24/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min<sup>1</sup></b>	0.78	17	2.3 DNQ	37	500	26	17	34	<3.1	630	6,500	52,000	58,000	8.0	18	63
<b>Plant 1 Avg</b>	0.77	16 DNQ	2.2 DNQ	37	490	19	16	34	<3.1	630	6,300	51,000	57,000		18	
<b>Plant 2 Max/Min<sup>1</sup></b>	0.97	17	3.6	46	540	16	19	40	<2.8	780	5,900	45,000	51,000	8.0	20	56
<b>Plant 2 Avg</b>	0.92	16	3.5	46	520	16	18	39	<2.8	770	5,800	44,000	50,000		21	
<b>Table 1 (Max/Min)<sup>1</sup></b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)<sup>2</sup></b>	25	Out of Service	Out of Service	24	24	25	25	24	25	25	25
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	Out of Service	97	98	97	98	98	97	97	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)<sup>2</sup></b>	19	Out of Service	18	Out of Service	18	18	Out of Service	18	18	Out of Service	18	18	18	18	18	18	29 <sup>3</sup>	18
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	102	Out of Service	101	100	Out of Service	100	100	Out of Service	100	99	99	100	99	100	98	97

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

<sup>1</sup> Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

<sup>2</sup> MCRT based on a 15-Day Rolling Average.

<sup>3</sup> Digester S was being fed significantly less because a pump was being replaced, therefore it had a higher detention time.



## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: April 1- 30, 2018

### Certifications:

**NPDES permit:** *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 the 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.*

**503 Class B:** *I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

**Arizona Class B:** *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

Jim Spears  
Operations Manager

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Ron Coss  
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Compliance Manager

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### Reviewers

Cindy Vellucci  
Cindy Vellucci (Jun 26, 2018)

Deirdre Bingman

Rachel van Exel

Margil Jimenez  
Margil Jimenez (Jun 27, 2018)



## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: May 1- 31, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

Sampling date(s): 05/15/18, 05/22/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min*</b>	1.2	16	1.9 DNQ	38	500	14	16	34	<3.2	660	6,700	48,000	54,000	7.6	18	56
<b>Plant 1 Avg</b>	1.0	15 DNQ	1.9 DNQ	38	500	14	16	34	<3.2	640	6,300	48,000	54,000		18	
<b>Plant 2 Max/Min*</b>	0.78	15	2.6	43	500	15	17	33	<2.7	710	5,700	44,000	50,000	7.6	20	56
<b>Plant 2 Avg</b>	0.77	15	2.5	42	500	15	17	33	<2.7	680	5,600	43,000	49,000		21	
<b>Table 1 (Max/Min)*</b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	20	Out of Service	Out of Service	20	20	20	20	19	20	20	20
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	Out of Service	97	98	97	98	98	98	98	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	17	Out of Service	17	Out of Service	17	17	Out of Service	17	17	Out of Service	17	17	17	17	17	Out of Service	17	17
<b>Minimum Temperature (Min 95 °F)</b>	98	Out of Service	102	Out of Service	101	100	Out of Service	100	100	Out of Service	99	98	99	101	100	Out of Service	101	98

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

\* Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

\*\* MCRT based on a 15-Day Rolling Average.



## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: May 1- 31, 2018

### Certifications:

**NPDES permit:** *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 the 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.*

**503 Class B:** *I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

**Arizona Class B:** *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

Jim Spears  
Operations Manager

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Ron Coss  
Laboratory, Monitoring &  
Compliance Manager

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### Reviewers

Cindy Vellucci  
Cindy Vellucci (Jul 25, 2018)

Deirdre Bingman

Rachel van Exel

Margil Jimenez  
Margil Jimenez (Jul 30, 2018)





## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: June 1- 30, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

Sampling date(s): 06/12/18, 06/19/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min*</b>	2.0	22	1.7	36	480	13	18	40	<2.8	670	7,100	54,000	61,000	7.7	17	57
<b>Plant 1 Avg</b>	1.4	19	1.8 DNQ	31	440	12	16	34	<2.8	600	6,600	53,000	59,000		19	
<b>Plant 2 Max/Min*</b>	0.98	21	2.9	44	490	15	21	39	<2.8	760	6,300	43,000	49,000	7.8	20	56
<b>Plant 2 Avg</b>	0.92	20 DNQ	2.6	38	440	13	18	34	<2.8	650	6,000	43,000	49,000		21	
<b>Table 1 (Max/Min)*</b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	19	Out of Service	Out of Service	18	18	19	19	18	19	19	19
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	Out of Service	98	97	98	98	98	98	98	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	18	Out of Service	18	Out of Service	18	18	Out of Service	18	17	Out of Service	17	18	18	18	17	Out of Service	18	18
<b>Minimum Temperature (Min 95 °F)</b>	98	Out of Service	99	Out of Service	100	100	Out of Service	98	98	Out of Service	98	98	100	100	99	Out of Service	100	100

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

\* Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

\*\* MCRT based on a 15-Day Rolling Average.



## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: June 1- 30, 2018

### Certifications:

**NPDES permit:** 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 the 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.

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**Arizona Class B:** I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

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Operations Manager

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(714) 593-7508

### Reviewers

Cindy Vellucci  
Cindy Vellucci (Sep 10, 2018)

Deirdre Bingman

Rachel van Exel

Margil Jimenez  
Margil Jimenez (Sep 24, 2018)



## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: July 1- 31, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

Sampling date(s): 07/17/18, 07/24/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min<sup>1</sup></b>	0.71	20	1.7 DNQ	34	440	12	16	33	<2.8	580	5,900	49,000	55,000	7.6	20	54
<b>Plant 1 Avg</b>	0.68	20	1.7 DNQ	33	430	12	16	32	<2.8	580	5,900	48,000	54,000		20	
<b>Plant 2 Max/Min<sup>1</sup></b>	0.92	20	2.9	46	510	14	19	35	<2.6	730	5,300	42,000	47,000	7.6	21	58
<b>Plant 2 Avg</b>	0.76	20	2.8	43	500	14	18	33	<2.6	700	5,300	41,000	46,000		22	
<b>Table 1 (Max/Min)<sup>1</sup></b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)<sup>2</sup></b>	20	Out of Service	Out of Service	19	19	20	20	20	20	20	20
<b>Minimum Temperature (Min 95 °F)</b>	98	Out of Service	Out of Service	98	98	98	98	98	98	98	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)<sup>2</sup></b>	18	89 <sup>3</sup>	18	Out of Service	18	18	Out of Service	17	17	19	18	17	18	18	18	Out of Service	18	18
<b>Minimum Temperature (Min 95 °F)</b>	96	96	99	Out of Service	100	99	Out of Service	98	98	99	99	97	100	100	100	Out of Service	99	100

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

<sup>1</sup> Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

<sup>2</sup> MCRT based on a 15-Day Rolling Average.

<sup>3</sup> Digester C started coming online, but had to be taken back out to address a mechanical issue.



## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: July 1- 31, 2018

### Certifications:

**NPDES permit:** *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 the 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.*

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### Reviewers

Cindy Vellucci (Oct 11, 2018)

Deirdre Bingman

Rachel van Exel

Margil Jimenez (Oct 11, 2018)



## Biosolids Monthly Compliance Report

**Facility Name:** Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

**Monitoring Period:** August 1- 31, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

**Sampling date(s):** 08/20/18, 08/27/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min<sup>1</sup></b>	0.84	23	1.9 DNQ	43	560	12	21	47	<3.1	730	6,900	56,000	62,000	7.9	18	54
<b>Plant 1 Avg</b>	0.77	22	1.8 DNQ	42	540	11	20	44	<3.1	700	6,600	53,000	59,000		19	
<b>Plant 2 Max/Min<sup>1</sup></b>	1.1	24	4.7	49	560	12	20	46	<2.7	810	5,800	45,000	50,000	7.7	21	47
<b>Plant 2 Avg</b>	0.96	23	4.4	48	550	12	20	44	<2.7	790	5,700	44,000	49,000		21	
<b>Table 1 (Max/Min)<sup>1</sup></b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)<sup>2</sup></b>	21	Out of Service	Out of Service	20	20	21	21	21	21	21	21
<b>Minimum Temperature (Min 95 °F)</b>	98	Out of Service	Out of Service	98	98	98	98	98	98	98	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)<sup>2</sup></b>	18	29 <sup>3</sup>	18	Out of Service	18	18	Out of Service	17	18	17	18	17	18	18	18	Out of Service	17	Out of Service
<b>Minimum Temperature (Min 95 °F)</b>	98	99	101	Out of Service	100	100	Out of Service	98	98	99	98	99	99	99	99	Out of Service	100	Out of Service

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

<sup>1</sup> Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

<sup>2</sup> MCRT based on a 15-Day Rolling Average.

<sup>3</sup> Digester C was brought into service on August 15, 2018.



# Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: August 1- 31, 2018

## Certifications:

**NPDES permit:** *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 the 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.*

**503 Class B:** *I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

**Arizona Class B:** *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

Jim Spears  
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## Reviewers

Cindy Vellucci (Oct 29, 2018)

Deirdre Bingman

Rachel van Exel

Scott Ahn (Oct 29, 2018)

Margil Jimenez (Oct 30, 2018)



## Biosolids Monthly Compliance Report

**Facility Name:** Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

**Monitoring Period:** September 1- 30, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

**Sampling date(s):** 09/18/18, 09/25/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min*</b>	1.2	20	1.6 DNQ	40	540	12	17	35	<3.1	660	5,500	50,000	55,000	7.6	18	53
<b>Plant 1 Avg</b>	1.1	20	1.6 DNQ	39	520	12	17	35	<3.1	660	5,400	47,000	52,000		19	
<b>Plant 2 Max/Min*</b>	1.2	21	3.2	48	580	15	18	41	<2.6	780	4,800	46,000	51,000	7.9	21	55
<b>Plant 2 Avg</b>	1.0	20	3.1	47	570	14	18	41	<2.6	770	4,700	43,000	48,000		21	
<b>Table 1 (Max/Min)*</b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	21	Out of Service	Out of Service	20	20	21	21	21	21	21	21
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	Out of Service	98	97	97	98	97	98	98	97

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	18	20	18	Out of Service	18	18	Out of Service	17	18	18	18	18	18	18	19	22	18	Out of Service
<b>Minimum Temperature (Min 95 °F)</b>	97	98	100	Out of Service	99	100	Out of Service	100	100	98	98	97	99	99	99	100	99	Out of Service

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

\* Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

\*\* MCRT based on a 15-Day Rolling Average.



## Biosolids Monthly Compliance Report

**Facility Name:** Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

**Monitoring Period:** September 1- 30, 2018

### Certifications:

**NPDES permit:** *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 the 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.*

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Deirdre Bingman

Rachel van Exel





## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: October 1- 31, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

Sampling date(s): 10/16/18,10/23/18

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min*</b>	1.0	29	4.4	76	610	19	22	47	<3.1	950	6,600	53,000	60,000	7.8	18	54
<b>Plant 1 Avg</b>	0.86	24	3.0 DNQ	58	510	15	18	38	<3.1	760	6,300	51,000	57,000		19	
<b>Plant 2 Max/Min*</b>	0.82	24	3.7	57	550	16	19	41	<2.7	810	5,900	47,000	53,000	7.8	20	53
<b>Plant 2 Avg</b>	0.81	24	2.7 DNQ	52	520	15	19	39	<2.7	760	5,700	46,000	51,000		21	
<b>Table 1 (Max/Min)*</b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	21	Out of Service	Out of Service	20	20	21	21	21	21	21	21
<b>Minimum Temperature (Min 95 °F)</b>	98	Out of Service	Out of Service	98	98	98	98	98	98	98	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	19	21	19	Out of Service	19	19	Out of Service	18	19	18	19	18	19	Out of Service	20	20	19	22
<b>Minimum Temperature (Min 95 °F)</b>	98	98	99	Out of Service	99	99	Out of Service	99	100	98	99	100	99	Out of Service	100	100	99	99

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

\* Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

\*\* MCRT based on a 15-Day Rolling Average.



# Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: October 1- 31, 2018

## Certifications:

**NPDES permit:** *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 the 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.*

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Cindy Vellucci  
Cindy Vellucci (Jan 11, 2019)

Deirdre Bingman

Rachel V. Exel

Rachel van Exel

Peter Park  
Peter Park (Jan 14, 2019)

Margil Jimenez  
Margil Jimenez (Jan 15, 2019)



## Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: December 1- 31, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

Sampling date(s): 12/04/18, 12/11/18 (2 samples for Plant No. 1 – belt presses and centrifuges)

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min*</b>	0.78	18	1.7 DNQ	38	500	13	19	35	<3.3	680	7,800	58,000	64,000	8.1	17	52
<b>Plant 1 Avg</b>	0.63	16	1.4 DNQ	34	450	11	16	30	<3.3	610	6,700	50,000	56,000		17	
<b>Plant 2 Max/Min*</b>	0.72	18	4.1	40	470	13	16	33	<2.9	700	6,300	54,000	60,000	7.7	19	52
<b>Plant 2 Avg</b>	0.65	18	4.1	39	440	13	16	33	<2.9	690	6,100	52,000	58,000		20	
<b>Table 1 (Max/Min)*</b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	19	Out of Service	Out of Service	19	19	20	20	20	19	19	20
<b>Minimum Temperature (Min 95 °F)</b>	98	Out of Service	Out of Service	98	98	98	98	98	98	98	98

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	19	22	19	Out of Service	20	20	Out of Service	19	19	19	20	Out of Service	20	Out of Service	20	21	19	22
<b>Minimum Temperature (Min 95 °F)</b>	98	98	100	Out of Service	98	99	Out of Service	99	99	101	98	Out of Service	98	Out of Service	100	100	100	100

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

\* Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

\*\* MCRT based on a 15-Day Rolling Average.



# Biosolids Monthly Compliance Report

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: December 1- 31, 2018

## Certifications:

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 <u>Cindy Vellucci</u> Cindy Vellucci (Jan 23, 2019)	 Deirdre Bingman	 Rachel van Exel	 <u>Peter Park</u> Peter Park (Jan 23, 2019)	 <u>Margil Jimenez</u> Margil Jimenez (Jan 28, 2019)
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Deirdre Bingman

Rachel van Exel



## Biosolids Monthly Compliance Report

**Facility Name:** Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

**Monitoring Period:** November 1- 30, 2018

This notice and necessary information demonstrates compliance with requirements of the Code of Federal Regulations Title 40 Part 503 and the Arizona Administrative Code Title 18, Chapter 9, Article 10 for land application pollutant concentrations, Class B pathogen reduction via anaerobic digestion (40CFR 503.32(b)(3)(A)(3), AAC R18-9-1006(E)(5)), and vector attraction reduction via volatile solids reduction (40CFR 503.33(b)(1), AAC R18-9-1010(A)(1)).

**Sampling date(s):** 11/06/18, 11/27/18, 11/29/18 (Plant 1)

	Mercury (mg/kg dry)	Arsenic (mg/kg dry)	Cadmium (mg/kg dry)	Chromium (mg/kg dry)	Copper (mg/kg dry)	Lead (mg/kg dry)	Molybdenum (mg/kg dry)	Nickel (mg/kg dry)	Selenium (mg/kg dry)	Zinc (mg/kg dry)	Ammonia Nitrogen (mg/kg dry)	Organic Nitrogen (mg/kg dry)	Total Nitrogen (mg/kg dry)	pH	Total Solids (%)	VSR (%)
<b>Plant 1 Max/Min*</b>	1.2	23	1.7 DNQ	42	480	17	22	50	<3.1	680	6,900	54,000	59,000	7.7	18	57
<b>Plant 1 Avg</b>	0.98	20	1.5 DNQ	38	450	13	20	38	<3.1	630	5,800	52,000	58,000		18	
<b>Plant 2 Max/Min*</b>	1.3	24	5.3	58	530	13	18	39	<2.8	810	5,700	43,000	48,000	7.9	20	56
<b>Plant 2 Avg</b>	1.0	22	4.7	53	510	13	18	39	<2.8	770	5,600	41,000	47,000		21	
<b>Table 1 (Max/Min)*</b>	57	75	85	3000	4300	840	75	420	100	7500	N/A	N/A	N/A	6.5	15	38
<b>Table 3 (Avg)</b>	17	41	39	N/A	1500	300	N/A	420	100	2800	N/A	N/A	N/A	N/A	N/A	N/A

OCSD Plant 1	System Summary	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	20	Out of Service	Out of Service	19	19	20	20	20	20	20	20
<b>Minimum Temperature (Min 95 °F)</b>	97	Out of Service	Out of Service	98	98	98	98	97	98	98	97

OCSD Plant 2	System Summary	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
<b>Minimum Mean Cell Residence Time (Min 15 days)**</b>	19	21	19	Out of Service	20	20	Out of Service	18	19	19	20	Out of Service	20	Out of Service	20	21	19	22
<b>Minimum Temperature (Min 95 °F)</b>	97	100	101	Out of Service	100	100	Out of Service	100	100	98	98	Out of Service	97	Out of Service	100	100	99	100

DNQ (Detected, Not Quantified) represents estimated values above the method detection limit (MDL), but below the reporting limit (RL).

\* Maximum values are reported for metals and nitrogen parameters; minimum values are reported for pH, volatile solids reduction (VSR) and total solids. Analysis of pH is conducted to comply with AAC R18-9-1007(A)(1). The limit for total solids applies only if biosolids are sent to a California landfill, per CCR Title 27 Section 20220(c)(3).

\*\* MCRT based on a 15-Day Rolling Average.



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Monitoring Period: November 1- 30, 2018

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Cindy Vellucci  
Cindy Vellucci (Jan 21, 2019)

Deirdre Bingman

Rachel van Exel

Rachel van Exel

Peter Park  
Peter Park (Jan 23, 2019)

Margil Jimenez  
Margil Jimenez (Jan 23, 2019)



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**SOLIDS MANAGEMENT PROGRAM**



## SOLIDS MANAGEMENT PROGRAM

### 9.1 INTRODUCTION

This section provides an overview of OCSD's Biosolids Program, focusing on the biosolids quality with respect to metals. Biosolids are nutrient-rich, treated organic matter recovered through the treatment of wastewater. These solids are considered a resource because of their nutrient and energy values, and they are recyclable in part because of their low metal content. The pretreatment program is a key element in ensuring the recyclability of OCSD's biosolids by minimizing the discharge of heavy metals and other undesirable constituents into the collection system and ultimately the treated solids, which are used to fertilize farms.

OCSD's annual biosolids compliance report was completed, submitted to regulators, and posted online in February. Visit [OCSD.com/503](http://OCSD.com/503) to access the most recent document that contains Biosolids Program information, regulations, quantities, policies, guiding principles, and how and where biosolids are recycled.

### 9.2 BIOSOLIDS QUALITY

Biosolids quality plays an important role in ensuring the continued recyclability of OCSD's biosolids. OCSD's pretreatment program has been extremely effective in reducing and maintaining levels of pollutants (e.g., OCSD's influent sewage meets drinking water standards for the biosolids monitoring metals). The ceiling concentrations and EQ (exceptional quality) concentrations promulgated by the EPA's biosolids regulations (40 CFR 503) are presented in the figures as a reference. For FY 2017/18, OCSD biosolids met the EQ limits for all the regulated parameters.

**TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2009-2018**  
(Concentration in mg/kg, dry weight)  
Orange County Sanitation District, Resource Protection Division

Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg	Min.	Max	Avg.
Arsenic		41						
	2008-09		4.3	12	7.1	3.5	13	9.0
	2009-10		2.0	10	5.2	4.4	10	7.2
	2010-11		7.2	9.7	8.4	8.6	12	10
	2011-12		2.3	11	7.4	6.6	66	22
	2012-13		0	7.8	4.7	2.0	10	7.0
	2013-14*		3.5	9.5	5.8	5.4	11	8.4
	2014-15		4.5	11	7.2	7.8	12	9.3
	2015-16*		6.3	12	8.3	6.2	12	9.2
	2016-17*		6.7	12	8.1	5.6	12	8.6
2017-18*		7.2	16	9.9	7.9	16	11	

**TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2009-2018**  
**(Concentration in mg/kg, dry weight)**  
 Orange County Sanitation District, Resource Protection Division

Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Cadmium		39						
	2008-09		2.5	6.2	4.1	1.7	4.4	3.0
	2009-10		1.1	4.4	2.9	1.0	4.8	2.8
	2010-11		1.2	3.8	2.6	1.4	5.0	2.5
	2011-12		0.8	6.0	3.8	1.1	4.4	3.6
	2012-13		2.6	7.8	4.7	1.9	4.4	3.1
	2013-14*		1.6	11	3.9	2.1	6.0	3.5
	2014-15		2.7	7.8	5.1	3.1	5.8	4.0
	2015-16*		1.3	4.7	2.5	2.0	4.5	3.0
	2016-17		2.6	3.1	2.3	2.0	3.8	3.0
2017-18*		1.7	4.4	3.0	2.5	7.7	5.1	
Chromium		**						
	2008-09		44	65	55	42	88	62.3
	2009-10		29	56	44	30	54	47
	2010-11		41	58	47	50	66	59
	2011-12		42	74	52	40	70	56
	2012-13		42	56	49	42	59	49
	2013-14		39	52	45	40	53	46
	2014-15		30	51	40	34	70	46
	2015-16		31	89	46	28	60	46
	2016-17		30	89	49	29	67	46
2017-18		27	38	34	38	54	44	
Copper		1,500						
	2008-09		500	590	560	500	540	520
	2009-10		420	620	540	370	560	500
	2010-11		520	600	570	500	720	570
	2011-12		430	670	520	380	720	520
	2012-13		480	640	540	500	640	540
	2013-14		460	540	510	470	540	500
	2014-15		320	570	470	320	560	470
	2015-16		380	560	460	340	570	480
	2016-17		400	560	460	340	570	490
2017-18		320	500	420	380	590	460	

**TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2009-2018**  
**(Concentration in mg/kg, dry weight)**  
 Orange County Sanitation District, Resource Protection Division

Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Lead		300						
	2008-09		11	25	21	6.0	21	15
	2009-10		9.0	44	23	9.0	20	17
	2010-11		21	24	23	9.0	30	20
	2011-12		ND	25	9.0	ND	32	13
	2012-13		7.5	19	15	7.5	17	14
	2013-14*		13	17.5	14	13	17	14
	2014-15*		8.7	15	13	9.0	17	13
	2015-16*		8.3	20	12	8.0	17	13
	2016-17*		7.9	20	11	7.5	17	12
2017-18*		8.9	19	12	10	16	13	
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Mercury		17						
	2008-09		1.0	1.9	1.4	1.0	2.6	1.4
	2009-10		1.0	3.2	1.4	0.9	1.6	1.3
	2010-11		0.8	2.2	1.3	0.8	2.3	1.2
	2011-12		0.8	1.4	1.2	0.8	2.6	1.3
	2012-13		0.7	4.1	1.5	0.8	3.8	1.4
	2013-14		0.8	1.2	1.0	0.7	2.8	1.4
	2014-15		1.0	1.5	1.1	1.0	1.5	1.0
	2015-16		0.6	1.7	0.93	0.64	1.2	1.0
	2016-17		0.53	1.7	0.90	0.70	1.2	0.90
2017-18		0.66	1.1	0.85	0.34	1.1	0.79	
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Molybdenum		**						
	2008-09		12	16	15	8.0	16	14
	2009-10		6.0	16	13	6.0	14	10
	2010-11		12	19	15	4.8	18	14
	2011-12		6.5	18	13	12	20	17
	2012-13		9.8	20	14	12	20	15
	2013-14		12	18	15	14	18	15
	2014-15		9.4	18	15	12	20	16
	2015-16*		11	18	15	11	23	16
	2016-17		12	18	15	11	23	16
2017-18*		10	16	14	13	18	15	

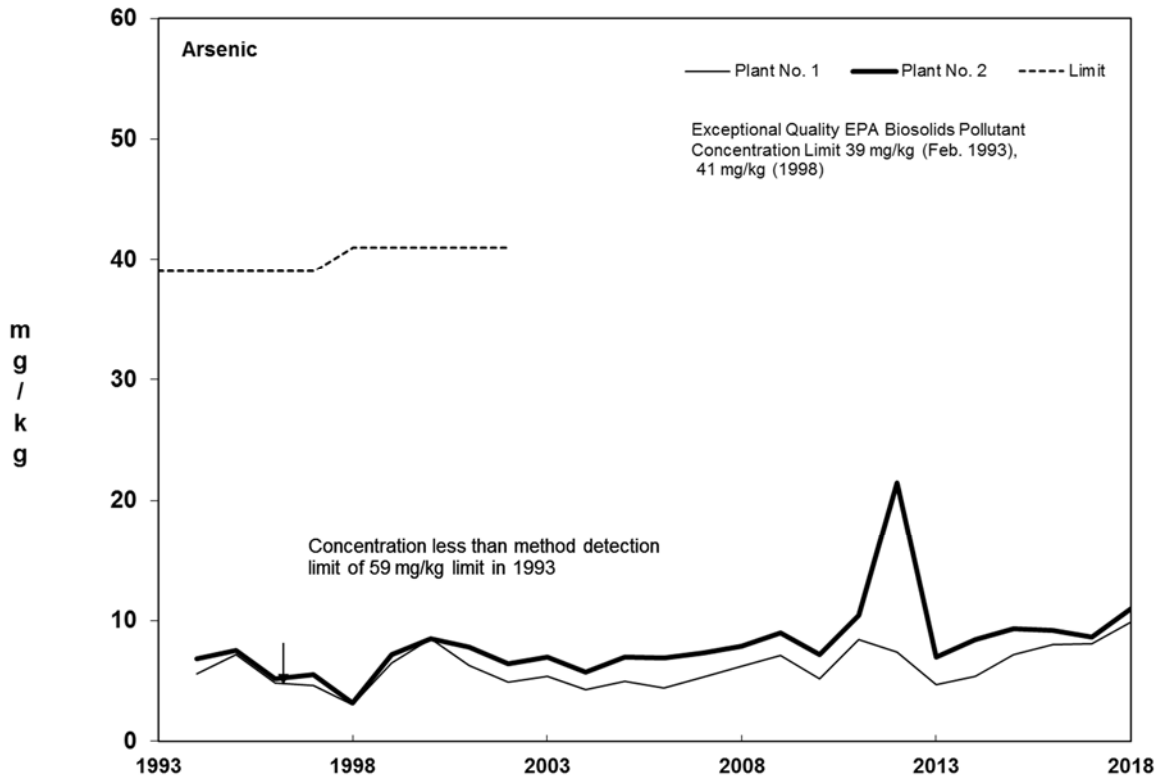
**TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2009-2018**  
**(Concentration in mg/kg, dry weight)**  
 Orange County Sanitation District, Resource Protection Division

Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Nickel		420						
	2008-09		30	41	35	22	37	29
	2009-10		12	36	28	9	27	21
	2010-11		28	46	37	14	38	32
	2011-12		15	48	35	20	39	31
	2012-13		34	48	40	23	41	30
	2013-14		36	55	43	28	56	37
	2014-15		26	47	37	26	41	34
	2015-16*		29	45	38	20	41	33
	2016-17		25	45	36	21	41	32
2017-18		28	37	32	31	39	34	
Selenium		100						
	2008-09		2.5	14	9.7	2.8	13	7.5
	2009-10		2.7	18	7.3	2.8	16	5.6
	2010-11		2.8	26	11	3.7	26	9.8
	2011-12		ND	26	9.0	ND	19	9.0
	2012-13		0	20	9.0	0	20	8.0
	2013-14*		3.5	13	7.9	4.2	13	8.3
	2014-15*		4.1	13	7.1	4.5	15	7.3
	2015-16*		4.4	11	8.1	3.7	10	7.6
	2016-17*		4.1	10	8.4	4.8	10	8.0
2017-18*		3.0	7.8	4.9	2.7	8.0	4.9	
Silver		**						
	2008-09		19	24	21	9.5	13	12
	2009-10		10	18	15	7.4	13	10
	2010-11		10	17	13	5.2	12	9.6
	2011-12		7	14	10	4.0	12	8.5
	2012-13		6.2	14	8.6	6.4	13	8.6
	2013-14		1.7	7.6	5.7	3.8	9.1	7.0
	2014-15		4.9	7.8	6.7	6.0	8.6	7.0
	2015-16		4.6	7.7	6.1	4.2	8.0	6.0
	2016-17		3.6	7.7	5.7	4.3	7.9	5.7
2017-18		2.4	5.5	4.0	2.8	5.7	4.2	

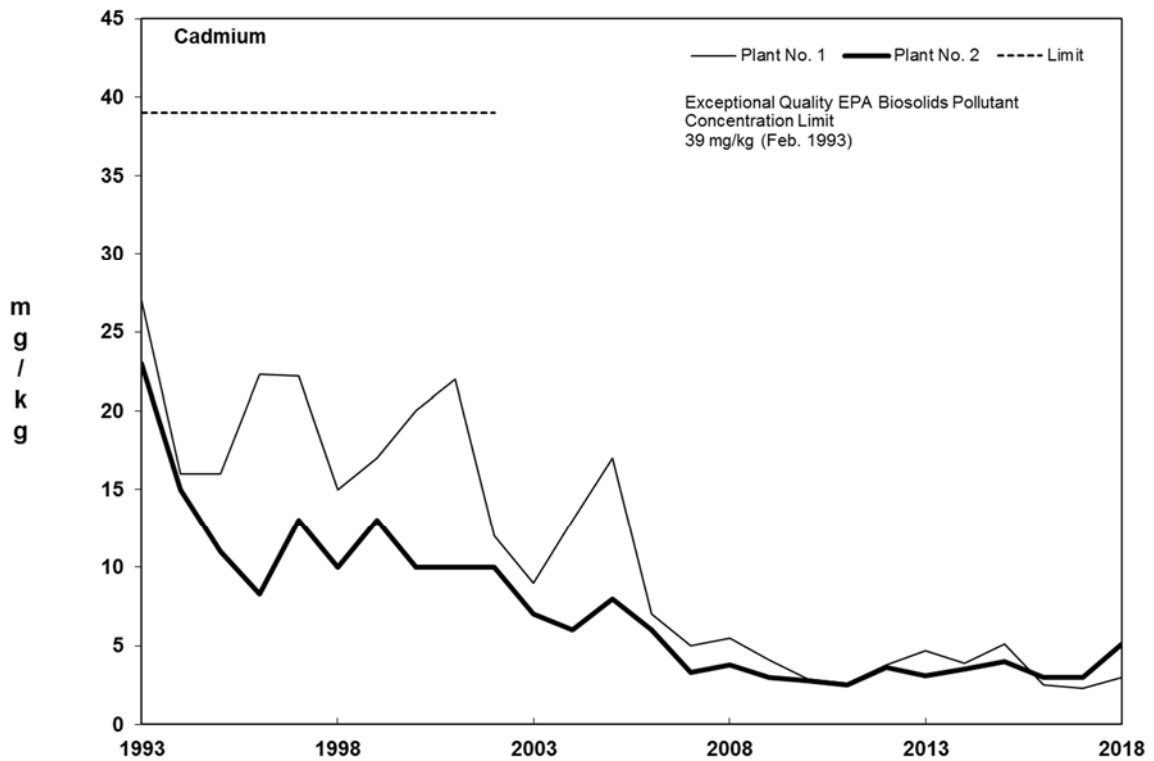
**TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2009-2018**  
**(Concentration in mg/kg, dry weight)**  
 Orange County Sanitation District, Resource Protection Division

Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Zinc		2,800						
	2008-09		720	870	790	700	800	750
	2009-10		560	810	740	520	790	710
	2010-11		630	740	700	700	830	740
	2011-12		560	880	710	560	910	750
	2012-13		640	860	720	680	880	770
	2013-14		590	730	670	620	750	700
	2014-15		420	720	620	470	740	670
	2015-16		500	770	620	520	890	730
	2016-17		550	770	610	520	890	740
	2017-18		470	680	600	590	910	720

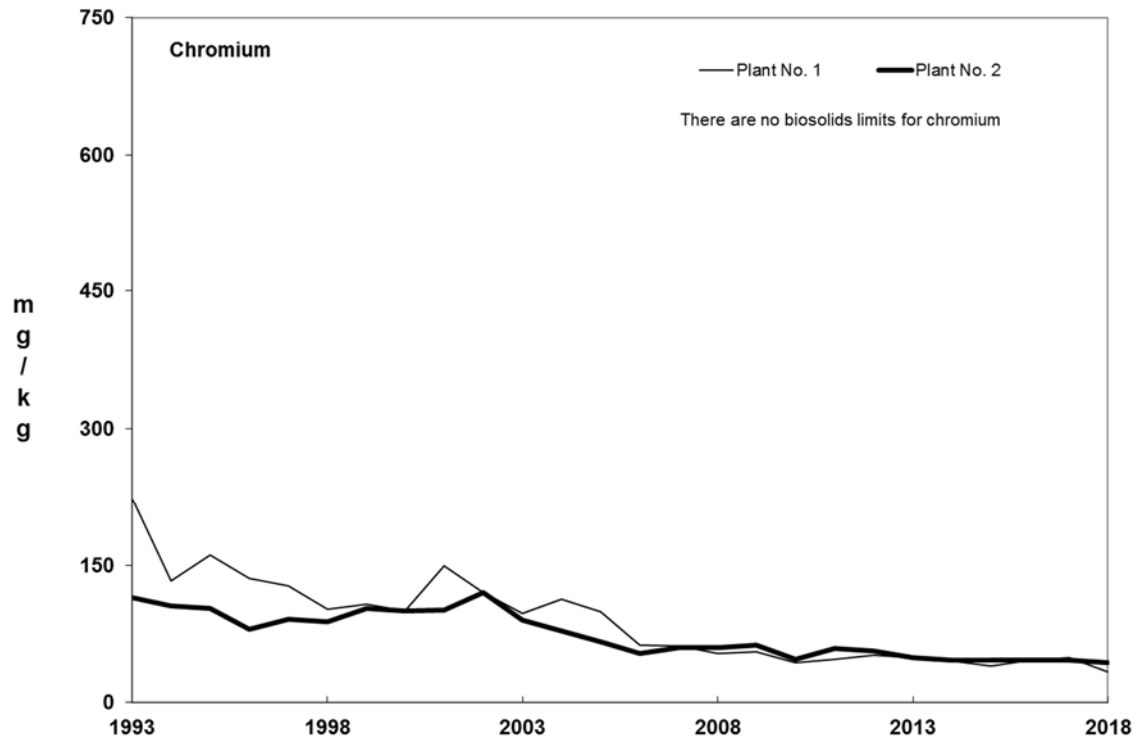
\* Calculations included data below the reporting limit, but above the method detection limit, and were therefore flagged as "detected not quantified."



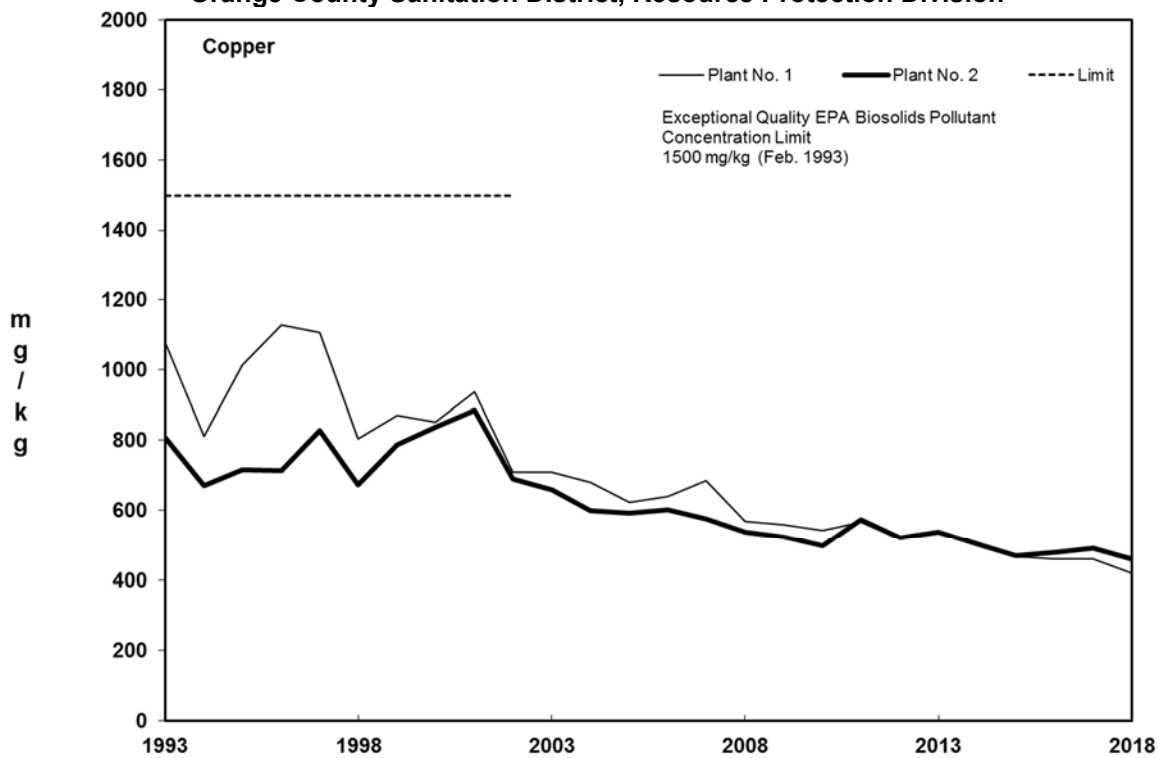
**Figure 9-1 Trends in Concentrations of Arsenic in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**



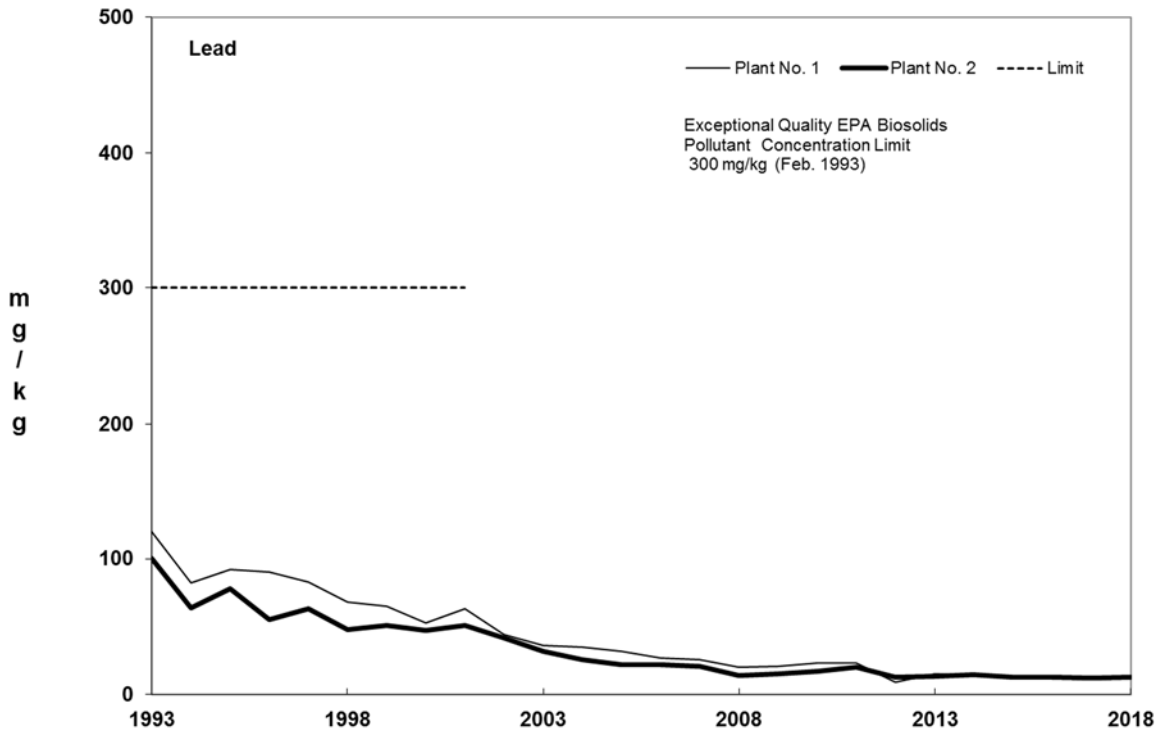
**Figure 9-2 Trends in Concentrations of Cadmium in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**



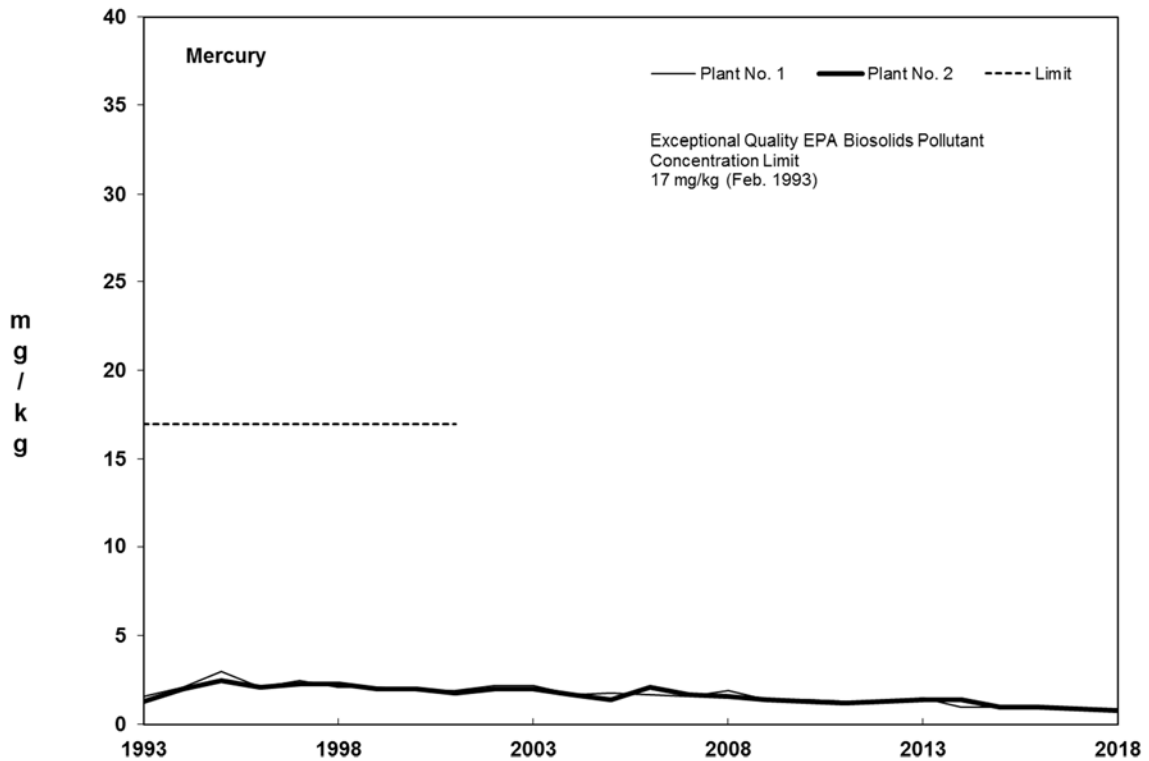
**Figure 9-3 Trends in Concentrations of Chromium in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**



**Figure 9-4 Trends in Concentrations of Copper in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**

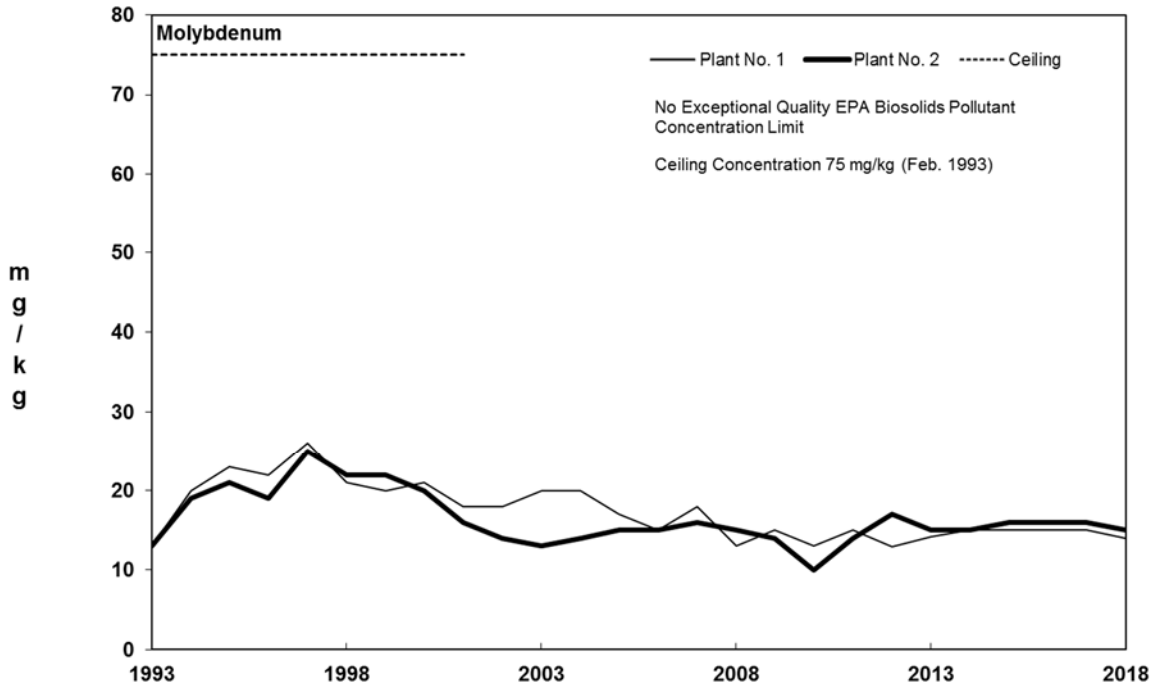


**Figure 9-5 Trends in Concentrations of Lead in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**

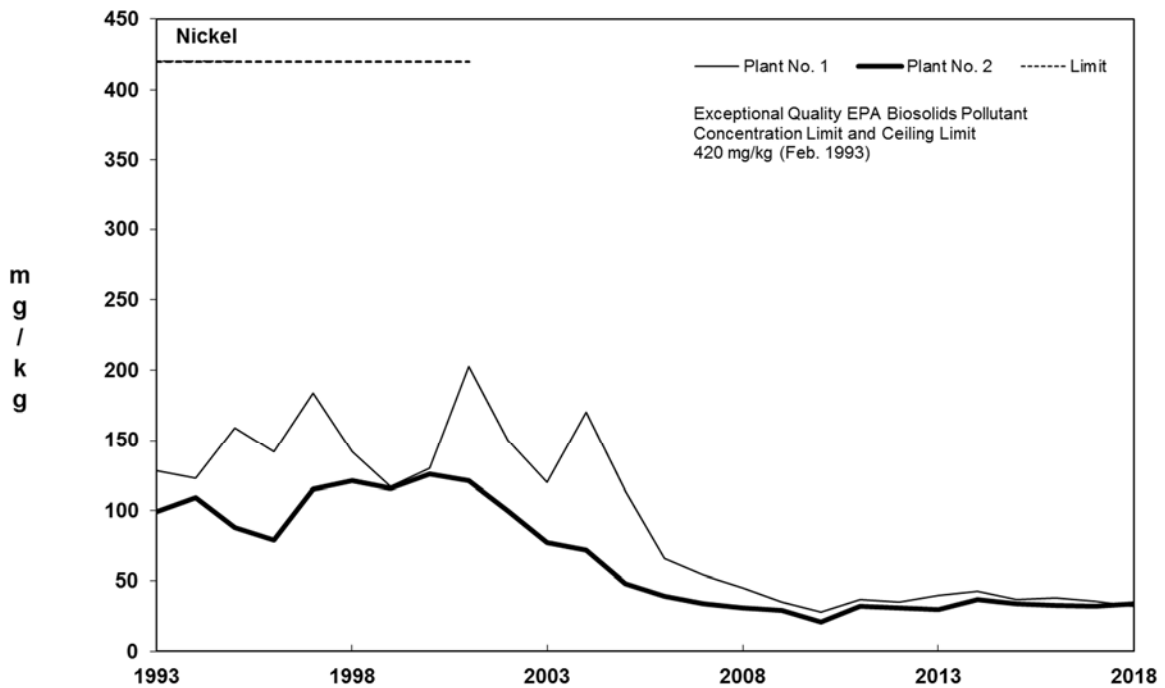


**Figure 9-6 Trends in Concentrations of Mercury in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**

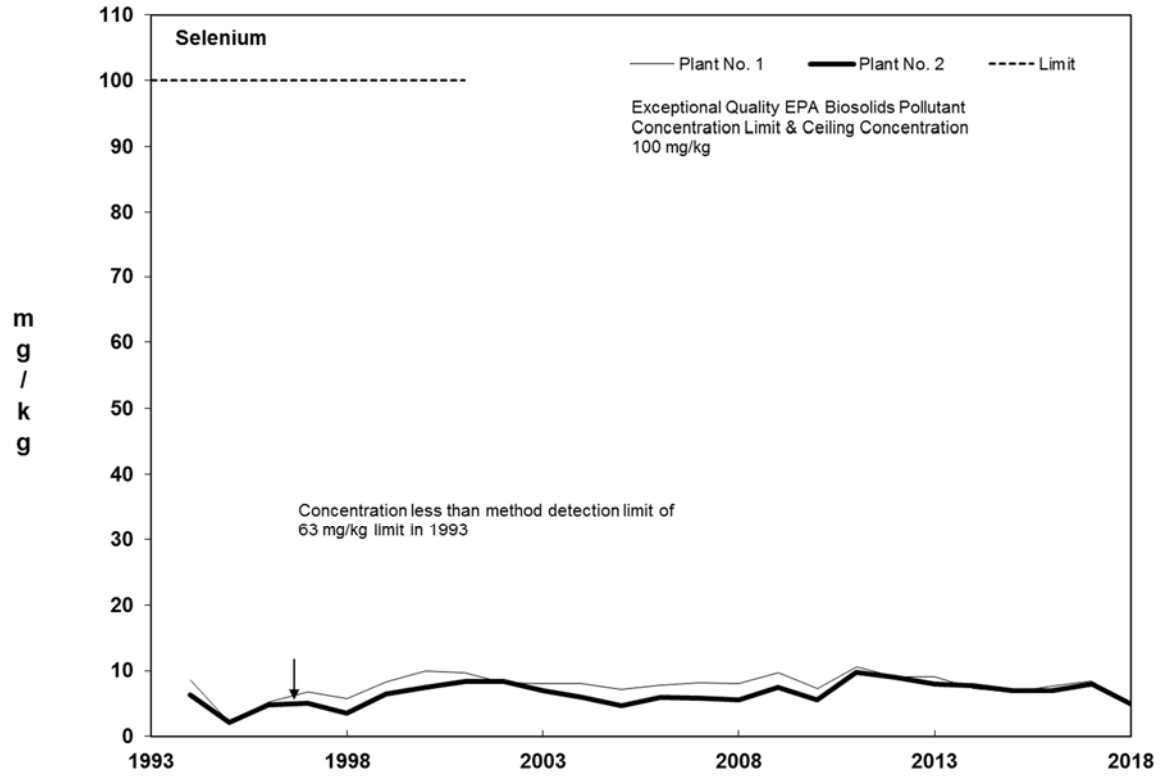




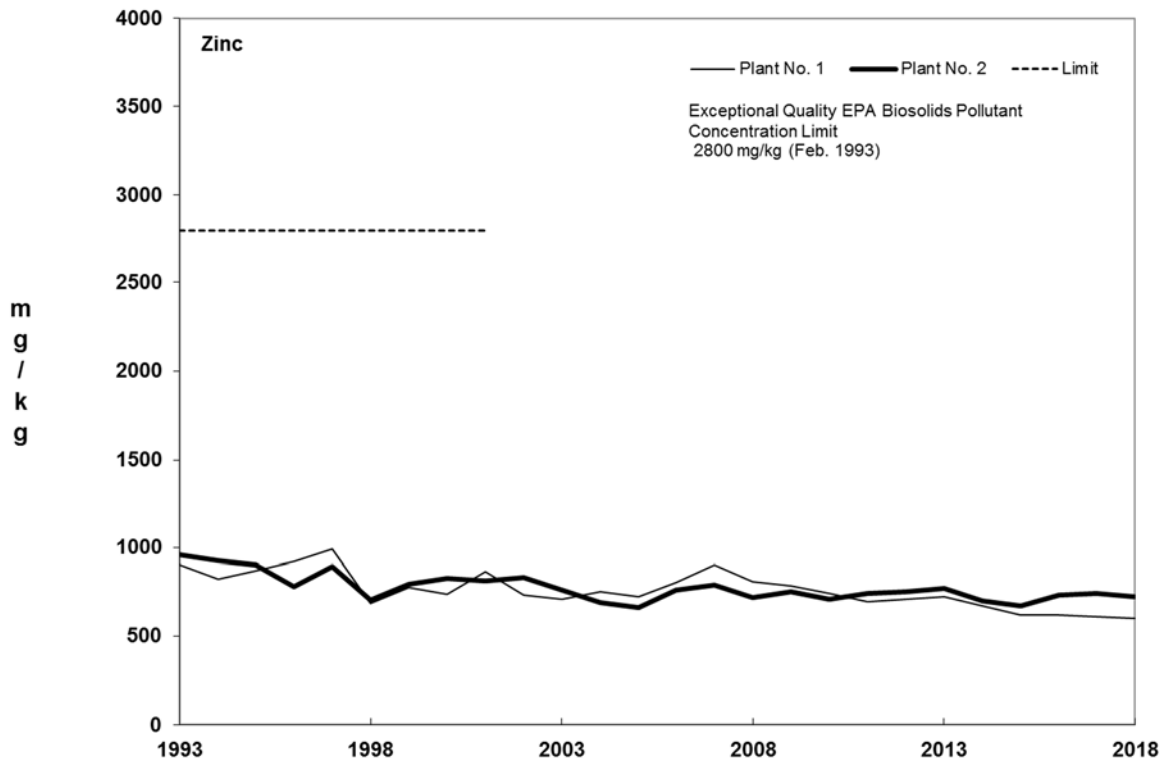
**Figure 9-7 Trends in Concentrations of Molybdenum in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**



**Figure 9-8 Trends in Concentrations of Nickel in Biosolids, Fiscal Years, 1993-2018 Orange County Sanitation District, Resource Protection Division**



**Figure 9-9 Trends in Concentrations of Selenium in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**



**Figure 9-10 Trends in Concentrations of Zinc in Biosolids, Fiscal Years 1993-2018 Orange County Sanitation District, Resource Protection Division**

**Summary of Priority Pollutants and  
Trace Constituents Analysis in Biosolids for 2018**

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## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL		
General Chemistry	Ammonia-N	SM 4500 NH3 G	mg/kg dry weight	Plant 1 Cake	01/23/2018	6100	270	1400		
					01/30/2018	6300	270	1300		
					02/20/2018	6700	300	1500		
					02/27/2018	6200	260	1300		
					Period Mean	6300				
					Period Max	6700				
					01/23/2018	5500	240	1200		
					01/30/2018	5400	240	1200		
					02/20/2018	5400	250	1200		
					02/27/2018	6300	260	1300		
	Period Mean	5600								
	Period Max	6300								
	Fluoride	EPA 300.0	mg/kg dry weight	Plant 1 Cake	01/23/2018	33	19	27		
					Period Mean	33				
					Period Max	33				
		EPA 300.0	mg/kg dry weight	Plant 2 Cake	01/23/2018	28	17	24		
					Period Mean	28				
					Period Max	28				
	Hexavalent Chromium	EPA 7196A	mg/kg dry weight	Plant 1 Cake	01/23/2018	ND	14	27		
					Period Mean	<14				
Period Max					<14					
EPA 7196A		mg/kg dry weight	Plant 2 Cake	01/23/2018	8.1 DNQ	5.9	12			
				Period Mean	8.1 DNQ					
				Period Max	8.1 DNQ					
Kjeldahl Nitrogen	EPA 351.2	mg/kg dry weight	Plant 1 Cake	01/23/2018	57000	6500	8600			
				01/30/2018	65000	8200	11000			
				02/20/2018	63000	8600	12000			
				02/27/2018	59000	15000	19000			
				Period Mean	61000					
				Period Max	65000					
				EPA 351.2	mg/kg dry weight	Plant 2 Cake	01/23/2018	52000	7400	9800
							01/30/2018	52000	5200	6900
	02/20/2018	63000	7600				10000			
	02/27/2018	48000	12000				16000			
	Period Mean	54000								
	Period Max	63000								
	Nitrate-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	01/23/2018	ND	4.4	6.0		
					01/30/2018	ND	4.3	6.0		
02/20/2018					ND	4.8	6.6			
02/27/2018					ND	4.3	5.9			
Period Mean					<4.8					
Period Max					<4.8					
EPA 300.0					mg/kg dry weight	Plant 2 Cake	01/23/2018	ND	3.8	5.2
							01/30/2018	ND	3.8	5.2
		02/20/2018	ND	4.1			5.6			
		02/27/2018	ND	4.2			5.8			
		Period Mean	<4.2							
		Period Max	<4.2							
Nitrite-N		EPA 300.0	mg/kg dry weight	Plant 1 Cake	01/23/2018	ND	6.0	8.2		
					01/30/2018	ND	6.0	8.1		
	02/20/2018				ND	6.6	9.0			
	02/27/2018				ND	5.9	8.0			
	Period Mean				<6.6					
	Period Max				<6.6					
	EPA 300.0				mg/kg dry weight	Plant 2 Cake	01/23/2018	ND	5.2	7.1
							01/30/2018	ND	5.2	7.1
				02/20/2018	ND	5.6	7.6			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL			
Organic Lead	HML 939-M	mg/kg dry weight	Plant 1 Cake	02/27/2018	ND	5.8	8.0				
				Period Mean	<5.8						
				Period Max	<5.8						
				01/23/2018	ND	0.13	0.31				
				Period Mean	<0.13						
				Period Max	<0.13						
	HML 939-M	mg/kg dry weight	Plant 2 Cake	01/23/2018	ND	0.11	0.27				
				Period Mean	<0.11						
				Period Max	<0.11						
				Organic Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	01/23/2018	51000	--	--
								01/30/2018	59000	--	--
								02/20/2018	56000	--	--
02/27/2018	53000	--	--								
Period Mean	55000										
Period Max	59000										
CALC	mg/kg dry weight	Plant 2 Cake	01/23/2018	47000	--	--					
			01/30/2018	47000	--	--					
			02/20/2018	58000	--	--					
			02/27/2018	42000	--	--					
			Period Mean	48000							
			Period Max	58000							
pH	EPA 9045C	pH units	Plant 1 Cake	01/23/2018	8.1	0.10	0.1				
				01/30/2018	7.9	0.10	0.1				
				02/20/2018	7.8	0.10	0.1				
				02/27/2018	7.8	0.10	0.1				
				Period Mean	7.9						
				Period Max	8.1						
	EPA 9045C	pH units	Plant 2 Cake	01/23/2018	8.0	0.10	0.1				
				01/30/2018	8.1	0.10	0.1				
				02/20/2018	8.0	0.10	0.1				
				02/27/2018	8.0	0.10	0.1				
				Period Mean	8.0						
				Period Max	8.1						
Total Cyanide	EPA 9014	mg/kg dry weight	Plant 1 Cake	01/23/2018	ND	2.3	2.7				
				Period Mean	<2.3						
				Period Max	<2.3						
	EPA 9014	mg/kg dry weight	Plant 2 Cake	01/23/2018	ND	2.0	2.4				
				Period Mean	<2.0						
				Period Max	<2.0						
Total Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	01/23/2018	57000	--	--				
				01/30/2018	65000	--	--				
				02/20/2018	63000	--	--				
				02/27/2018	59000	--	--				
				Period Mean	61000						
				Period Max	65000						
	CALC	mg/kg dry weight	Plant 2 Cake	01/23/2018	52000	--	--				
				01/30/2018	52000	--	--				
				02/20/2018	63000	--	--				
				02/27/2018	48000	--	--				
				Period Mean	54000						
				Period Max	63000						
Total Solids	SM 2540G	%	Plant 1 Cake	01/23/2018	18	0.050	0.050				
				01/30/2018	18	0.050	0.050				
				02/20/2018	17	0.050	0.050				
				02/27/2018	19	0.050	0.050				
				Period Mean	18						
				Period Max	19						

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		SM 2540G	%	Plant 2 Cake	01/23/2018	21	0.050	0.050
					01/30/2018	21	0.050	0.050
					02/20/2018	20	0.050	0.050
					02/27/2018	19	0.050	0.050
					Period Mean	20		
					Period Max	21		
Trace Elements	Antimony	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	ND	2.0	27
					Period Mean	<2.0		
					Period Max	<2.0		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	ND	1.8	24
					Period Mean	<1.8		
					Period Max	<1.8		
	Arsenic	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	8.2 DNQ	3.0	16
					01/30/2018	12 DNQ	2.9	16
					02/20/2018	10 DNQ	3.3	18
					02/27/2018	14 DNQ	2.9	16
					Period Mean	11 DNQ		
		Period Max	14 DNQ					
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	12 DNQ	2.6	14
					01/30/2018	14	2.6	14
					02/20/2018	13 DNQ	2.7	15
	02/27/2018				13 DNQ	2.9	16	
	Period Mean	13 DNQ						
	Period Max	14						
Barium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	230	0.54	27	
				Period Mean	230			
				Period Max	230			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	800	0.48	24	
				Period Mean	800			
Period Max	800							
Beryllium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	0.13 DNQ	0.066	2.7	
				Period Mean	0.13 DNQ			
				Period Max	0.13 DNQ			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	0.20 DNQ	0.058	2.4	
				Period Mean	0.20 DNQ			
Period Max	0.20 DNQ							
Cadmium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	1.8 DNQ	0.13	2.7	
				01/30/2018	3.3	0.13	2.7	
				02/20/2018	3.9	0.15	3.0	
				02/27/2018	2.8	0.13	2.6	
				Period Mean	3.0 DNQ			
	Period Max	3.9						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	5.1	0.12	2.4	
				01/30/2018	5.6	0.11	2.3	
				02/20/2018	7.7	0.12	2.5	
				02/27/2018	6.9	0.13	2.6	
Period Mean				6.3				
Period Max	7.7							
Chromium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	25	1.2	11	
				01/30/2018	36	1.2	11	
				02/20/2018	39	1.3	12	
				02/27/2018	35	1.1	11	
				Period Mean	34			
	Period Max	39						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	37	1.0	9.5	
				01/30/2018	45	1.0	9.3	
				02/20/2018	49	1.1	9.9	

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Cobalt					02/27/2018	59	1.1	11
					Period Mean	48		
					Period Max	59		
	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	1.6 DNQ	0.30	11	
				Period Mean	1.6 DNQ			
				Period Max	1.6 DNQ			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	2.9 DNQ	0.26	9.5	
				Period Mean	2.9 DNQ			
				Period Max	2.9 DNQ			
	Copper	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	260	2.4	14
01/30/2018					420	2.4	13	
02/20/2018					510	2.6	15	
02/27/2018					450	2.3	13	
Period Mean					410			
Period Max					510			
EPA 6010B					mg/kg dry weight	Plant 2 Cake	01/23/2018	350
		01/30/2018	430	2.1			12	
		02/20/2018	500	2.2			12	
		02/27/2018	510	2.3			13	
		Period Mean	450					
		Period Max	510					
		Iron	EPA 6010B	mg/kg dry weight			Plant 1 Cake	01/23/2018
01/30/2018					58000	12		53
02/20/2018	62000				13	59		
02/27/2018	56000				12	53		
Period Mean	53000							
Period Max	62000							
EPA 6010B	mg/kg dry weight				Plant 2 Cake	01/23/2018		55000
			01/30/2018	64000		10	47	
			02/20/2018	67000		11	49	
			02/27/2018	65000		12	53	
			Period Mean	63000				
			Period Max	67000				
			Lead	EPA 6010B		mg/kg dry weight	Plant 1 Cake	01/23/2018
01/30/2018	12				0.73			5.3
02/20/2018	14	0.81			5.9			
02/27/2018	12	0.72			5.3			
Period Mean	11							
Period Max	14							
EPA 6010B	mg/kg dry weight	Plant 2 Cake			01/23/2018			11
				01/30/2018	13	0.64	4.7	
				02/20/2018	16	0.68	4.9	
				02/27/2018	15	0.72	5.3	
				Period Mean	14			
				Period Max	16			
				Magnesium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018
01/30/2018	6900	18						130
02/20/2018	6700	20	150					
02/27/2018	6000	18	130					
Period Mean	5900							
Period Max	6900							
EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018					6100
			01/30/2018		7400	16	120	
			02/20/2018		7800	17	120	
			02/27/2018		7600	18	130	
			Period Mean		7200			
			Period Max		7800			



**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Mercury	EPA 7471A	mg/kg dry weight	Plant 1 Cake	01/23/2018	0.74	0.066	0.11	
				01/30/2018	0.70	0.065	0.11	
				02/20/2018	1.0	0.072	0.12	
				02/27/2018	0.77	0.063	0.11	
				Period Mean	0.80			
				Period Max	1.0			
				01/23/2018	0.77	0.057	0.095	
				01/30/2018	0.84	0.057	0.095	
				02/20/2018	0.61	0.060	0.10	
				02/27/2018	0.96	0.064	0.11	
	Period Mean	0.80						
	Period Max	0.96						
	Molybdenum	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	8.5 DNQ	0.31	11
					01/30/2018	14	0.30	11
02/20/2018					16	0.33	12	
02/27/2018					14	0.30	11	
Period Mean					13 DNQ			
Period Max					16			
01/23/2018					12	0.27	9.5	
01/30/2018					14	0.26	9.3	
02/20/2018					16	0.28	9.9	
02/27/2018					16	0.30	11	
Period Mean		14						
Period Max		16						
Nickel		EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	30	0.98	11
					01/30/2018	36	0.96	11
	02/20/2018				39	1.1	12	
	02/27/2018				34	0.94	11	
	Period Mean				35			
	Period Max				39			
	01/23/2018				30	0.86	9.5	
	01/30/2018				32	0.84	9.3	
	02/20/2018				38	0.89	9.9	
	02/27/2018				38	0.94	11	
	Period Mean	34						
	Period Max	38						
	Selenium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	ND	3.1	27
					01/30/2018	ND	3.0	27
02/20/2018					ND	3.3	30	
02/27/2018					ND	2.9	26	
Period Mean					<3.3			
Period Max					<3.3			
01/23/2018					ND	2.7	24	
01/30/2018					ND	2.6	23	
02/20/2018					ND	2.8	25	
02/27/2018					ND	2.9	26	
Period Mean		<2.9						
Period Max		<2.9						
Silver		EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	2.4 DNQ	0.77	14
					01/30/2018	4.0 DNQ	0.75	13
	02/20/2018				4.9 DNQ	0.84	15	
	02/27/2018				4.1 DNQ	0.74	13	
	Period Mean				3.8 DNQ			
	Period Max				4.9 DNQ			
	01/23/2018				3.4 DNQ	0.67	12	
	01/30/2018				4.0 DNQ	0.66	12	
	02/20/2018				4.6 DNQ	0.70	12	

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
					02/27/2018	4.6 DNQ	0.74	13
					Period Mean	4.2 DNQ		
					Period Max	4.6 DNQ		
	Thallium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	ND	1.8	27
					Period Mean	<1.8		
					Period Max	<1.8		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	ND	1.5	24
					Period Mean	<1.5		
					Period Max	<1.5		
	Vanadium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	12	2.9	5.4
					Period Mean	12		
					Period Max	12		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	01/23/2018	39	2.5	4.8
					Period Mean	39		
					Period Max	39		
	Zinc	EPA 6010B	mg/kg dry weight	Plant 1 Cake	01/23/2018	430	9.4	27
					01/30/2018	580	9.2	27
					02/20/2018	620	10	30
					02/27/2018	610	9.1	26
					Period Mean	560		
Period Max		620						
EPA 6010B		mg/kg dry weight	Plant 2 Cake	01/23/2018	620	8.2	24	
				01/30/2018	680	8.1	23	
				02/20/2018	730	8.6	25	
				02/27/2018	770	9.1	26	
	Period Mean			700				
Period Max	770							
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
	1,1,1-Trichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
	1,1,1,2-Tetrachloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
	1,1,2-Trichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
1,1-Dichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47	
				Period Mean	<24			
				Period Max	<24			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	1,1-Dichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
	1,1-Dichloropropene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
	1,2,3-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
	1,2,3-Trichloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	220
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	240
					Period Mean	<24		
					Period Max	<24		
	1,2,4-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
	1,2,4-Trimethylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	1300	22	44
					Period Mean	1300		
					Period Max	1300		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	900	24	47
					Period Mean	900		
					Period Max	900		
	1,2-Dibromo-3-chloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	44	110
					Period Mean	<44		
					Period Max	<44		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	47	120
					Period Mean	<47		
					Period Max	<47		
	1,2-Dibromoethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
	1,2-Dichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
	1,2-Dichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
1,2-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
1,3,5-Trichlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	24	48
					Period Mean	<24		
					Period Max	<24		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
1,3,5-Trimethylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	330	22	44
					Period Mean	330		
					Period Max	330		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	240	24	47
					Period Mean	240		
					Period Max	240		
1,3-Dichlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
1,3-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
1,4-Dichlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
2,2-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
2-Chlorotoluene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
2-Hexanone		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	110	560
					Period Mean	<110		
					Period Max	<110		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	590
					Period Mean	<120		
					Period Max	<120		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
4-Chlorotoluene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120	
				Period Mean	<24			
				Period Max	<24			
Acrolein	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	220	2200	
				Period Mean	<220			
				Period Max	<220			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	240	2400	
				Period Mean	<240			
				Period Max	<240			
Acrylonitrile	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	440	2200	
				Period Mean	<440			
				Period Max	<440			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	470	2400	
				Period Mean	<470			
				Period Max	<470			
Benzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47	
				Period Mean	<24			
				Period Max	<24			
Bromobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120	
				Period Mean	<24			
				Period Max	<24			
Bromochloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120	
				Period Mean	<24			
				Period Max	<24			
Bromodichloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47	
				Period Mean	<24			
				Period Max	<24			
Bromoform	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	44	110	
				Period Mean	<44			
				Period Max	<44			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	47	120	
				Period Mean	<47			
				Period Max	<47			
Bromomethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120	
				Period Mean	<24			
				Period Max	<24			
Carbon tetrachloride	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110	
				Period Mean	<22			
				Period Max	<22			

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
Chlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
Chloroethane		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	44	110
					Period Mean	<44		
					Period Max	<44		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	47	120
					Period Mean	<47		
					Period Max	<47		
Chloroform		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
Chloromethane		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
cis-1,2-Dichloroethene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
cis-1,3-Dichloropropene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
Dibromochloromethane		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
Dibromomethane		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
Dichlorodifluoromethane		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	44	110
					Period Mean	<44		
					Period Max	<44		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	47	120
					Period Mean	<47		
					Period Max	<47		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Ethylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	120	22	44	
				Period Mean	120			
				Period Max	120			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	72	24	47	
				Period Mean	72			
				Period Max	72			
Hexachlorobutadiene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120	
				Period Mean	<24			
				Period Max	<24			
Isobutyl alcohol	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	560	1100	
				Period Mean	<560			
				Period Max	<560			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	590	1200	
				Period Mean	<590			
				Period Max	<590			
Isopropylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47	
				Period Mean	<24			
				Period Max	<24			
m,p-Xylenes	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	670	44	89	
				Period Mean	670			
				Period Max	670			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	330	47	94	
				Period Mean	330			
				Period Max	330			
Methyl ethyl ketone	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	1700	110	220	
				Period Mean	1700			
				Period Max	1700			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	3300	120	240	
				Period Mean	3300			
				Period Max	3300			
Methylene Chloride	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	110	440	
				Period Mean	<110			
				Period Max	<110			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	470	
				Period Mean	<120			
				Period Max	<120			
MIBK	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	56	110	
				Period Mean	<56			
				Period Max	<56			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	59	120	
				Period Mean	<59			
				Period Max	<59			
Naphthalene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	180	44	110	
				Period Mean	180			
				Period Max	180			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	160	47	120	
				Period Mean	160			
				Period Max	160			
n-Butylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	71 DNQ	22	110	
				Period Mean	71 DNQ			
				Period Max	71 DNQ			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	61 DNQ	24	120
					Period Mean	61 DNQ		
					Period Max	61 DNQ		
n-Propylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	110	22	44
					Period Mean	110		
					Period Max	110		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	80	24	47
					Period Mean	80		
					Period Max	80		
o-Xylene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	300	22	44
					Period Mean	300		
					Period Max	300		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	150	24	47
					Period Mean	150		
					Period Max	150		
sec-Butylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
Styrene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
tert-Butylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
Tetrachloroethene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
Toluene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	230	22	44
					Period Mean	230		
					Period Max	230		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	91	24	47
					Period Mean	91		
					Period Max	91		
trans-1,2-Dichloroethene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
trans-1,3-Dichloropropene		EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Trichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	47
					Period Mean	<24		
					Period Max	<24		
	Trichlorofluoromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110
					Period Mean	<22		
					Period Max	<22		
		EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120
					Period Mean	<24		
					Period Max	<24		
Vinyl chloride	EPA 8260B	µg/kg dry	Plant 1 Cake	01/23/2018	ND	22	110	
				Period Mean	<22			
				Period Max	<22			
	EPA 8260B	µg/kg dry	Plant 2 Cake	01/23/2018	ND	24	120	
				Period Mean	<24			
				Period Max	<24			
Semi-Volatile Organic Compounds	1,2,4-Trichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
	1,2-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
	1,3-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
	1,4-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
2,4,5-Trichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1800	4600	
				Period Mean	<1800			
				Period Max	<1800			
2,4,6-Trichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	610	2700	
				Period Mean	<610			
				Period Max	<610			
	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1000	4600	
				Period Mean	<1000			
				Period Max	<1000			
2,4-Dichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700	
				Period Mean	<540			
				Period Max	<540			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		
2,4-Dimethylphenol		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1800	4600
					Period Mean	<1800		
					Period Max	<1800		
2,4-Dinitrophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	2700	5400
					Period Mean	<2700		
					Period Max	<2700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	4600	9200
					Period Mean	<4600		
					Period Max	<4600		
2,4-Dinitrotoluene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	650	2700
					Period Mean	<650		
					Period Max	<650		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1100	4600
					Period Mean	<1100		
					Period Max	<1100		
2,6-Dinitrotoluene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	770	2700
					Period Mean	<770		
					Period Max	<770		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1300	4600
					Period Mean	<1300		
					Period Max	<1300		
2-Chloronaphthalene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		
2-Chlorophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
2-Methylnaphthalene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
2-Methylphenol		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	650	2700
					Period Mean	<650		
					Period Max	<650		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1100	4600
					Period Mean	<1100		
					Period Max	<1100		
2-Nitroaniline		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	2-Nitrophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
3,3-Dichlorobenzidine	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1200	6700	
				Period Mean	<1200			
				Period Max	<1200			
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	2100	12000
					Period Mean	<2100		
					Period Max	<2100		
3-Nitroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
4,6-Dinitro-2-methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	3400	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	5900
					Period Mean	<1900		
					Period Max	<1900		
4-Bromophenyl phenyl ether	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	610	2700	
				Period Mean	<610			
				Period Max	<610			
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1000	4600
					Period Mean	<1000		
					Period Max	<1000		
4-Chloro-3-methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700	
				Period Mean	<570			
				Period Max	<570			
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
4-Chloroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
4-Chlorophenyl phenyl ether	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	690	2700	
				Period Mean	<690			
				Period Max	<690			
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1200	4600
					Period Mean	<1200		
					Period Max	<1200		
4-Methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	32000	1100	2700	
				Period Mean	32000			
				Period Max	32000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
4-Nitroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	6700	
				Period Mean	<1100			
				Period Max	<1100			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	12000
					Period Mean	<1900		
					Period Max	<1900		
4-Nitrophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	6700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	2000	12000
					Period Mean	<2000		
					Period Max	<2000		
Acenaphthene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		
Acenaphthylene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
Aniline		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	690	3400
					Period Mean	<690		
					Period Max	<690		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1200	5900
					Period Mean	<1200		
					Period Max	<1200		
Anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	650	2700
					Period Mean	<650		
					Period Max	<650		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1100	4600
					Period Mean	<1100		
					Period Max	<1100		
Azobenzene/1,2-Diphenylhydrazine		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
Benz(a)anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
Benzidine		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	5400	11000
					Period Mean	<5400		
					Period Max	<5400		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	9200	19000
					Period Mean	<9200		
					Period Max	<9200		
Benzo(a)pyrene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Benzo(b)fluoranthene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
	Benzo(g,h,i)perylene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	890	2700
					Period Mean	<890		
					Period Max	<890		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1500	4600
					Period Mean	<1500		
					Period Max	<1500		
	Benzo(k)fluoranthene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
	Benzoic acid	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	2800	6700
					Period Mean	<2800		
					Period Max	<2800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	4800	12000
					Period Mean	<4800		
					Period Max	<4800		
	Benzyl alcohol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1200	2700
					Period Mean	<1200		
					Period Max	<1200		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	2100	4600
					Period Mean	<2100		
					Period Max	<2100		
	Bis(2-chloroethoxy)methane	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
	Bis(2-chloroethyl)ether	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
	Bis(2-chloroisopropyl) ether	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
	Bis(2-ethylhexyl)phthalate	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	7700	730	2700
					Period Mean	7700		
					Period Max	7700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	9800	1300	4600
					Period Mean	9800		
					Period Max	9800		
	Butyl benzyl phthalate	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	650	2700
					Period Mean	<650		
					Period Max	<650		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1100	4600
					Period Mean	<1100		
					Period Max	<1100		
Chrysene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	610	2700
					Period Mean	<610		
					Period Max	<610		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1000	4600
					Period Mean	<1000		
					Period Max	<1000		
Dibenz(a,h)anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	810	3400
					Period Mean	<810		
					Period Max	<810		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1400	5900
					Period Mean	<1400		
					Period Max	<1400		
Dibenzofuran		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		
Diethyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	770	2700
					Period Mean	<770		
					Period Max	<770		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1300	4600
					Period Mean	<1300		
					Period Max	<1300		
Dimethyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		
Di-n-butyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	730	2700
					Period Mean	<730		
					Period Max	<730		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1300	4600
					Period Mean	<1300		
					Period Max	<1300		
Di-n-octyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	730	2700
					Period Mean	<730		
					Period Max	<730		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1300	4600
					Period Mean	<1300		
					Period Max	<1300		
Fluoranthene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
Fluorene		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Hexachlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
	Hexachlorobutadiene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
	Hexachlorocyclopentadiene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	6700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	12000
					Period Mean	<1900		
					Period Max	<1900		
	Hexachloroethane	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600
					Period Mean	<1900		
					Period Max	<1900		
	Indeno(1,2,3-cd)pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1800	4600
					Period Mean	<1800		
					Period Max	<1800		
	Isophorone	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		
	Naphthalene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		
	Nitrobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
	N-Nitrosodimethylamine	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2700
					Period Mean	<570		
					Period Max	<570		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	4600
					Period Mean	<980		
					Period Max	<980		
	N-Nitroso-di-n-propylamine	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	2000
					Period Mean	<570		
					Period Max	<570		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	980	3500
					Period Mean	<980		
					Period Max	<980		
	N-Nitrosodiphenylamine	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	650	2700
					Period Mean	<650		
					Period Max	<650		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1100	4600
					Period Mean	<1100		
					Period Max	<1100		
	Pentachlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	2800	6700
					Period Mean	<2800		
					Period Max	<2800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	4800	12000
					Period Mean	<4800		
					Period Max	<4800		
	Phenanthrene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	940	4600
					Period Mean	<940		
					Period Max	<940		
	Phenol	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	730	2700
					Period Mean	<730		
					Period Max	<730		
EPA 8270C		µg/kg dry	Plant 2 Cake	01/23/2018	ND	1300	4600	
				Period Mean	<1300			
				Period Max	<1300			
Pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1900	4600	
				Period Mean	<1900			
				Period Max	<1900			
Pyridine	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	ND	1200	2800	
				Period Mean	<1200			
				Period Max	<1200			
	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	ND	2100	4800	
				Period Mean	<2100			
				Period Max	<2100			
Organochlorine Pesticides	Aldrin	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	260	1800
					Period Mean	<260		
					Period Max	<260		
	EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	230	1500	
				Period Mean	<230			
				Period Max	<230			
	alpha-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	2800	220	1800
					Period Mean	2800		
					Period Max	2800		
	EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	520 DNQ	190	1500	
				Period Mean	520 DNQ			
				Period Max	520 DNQ			
beta-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	13000	690	1800	
				Period Mean	13000			
				Period Max	13000			
	EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	600	1500	
				Period Mean	<600			
				Period Max	<600			



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Chlordane	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	8100	26000
					Period Mean	<8100		
					Period Max	<8100		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	7000	23000
					Period Mean	<7000		
					Period Max	<7000		
delta-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	420	1800	
				Period Mean	<420			
				Period Max	<420			
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	360	1500
					Period Mean	<360		
					Period Max	<360		
Dieldrin	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	220	1800	
				Period Mean	<220			
				Period Max	<220			
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	190	1500
					Period Mean	<190		
					Period Max	<190		
Endosulfan 1	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	180	1800	
				Period Mean	<180			
				Period Max	<180			
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	1200 DNQ	160	1500
					Period Mean	1200 DNQ		
					Period Max	1200 DNQ		
Endosulfan 2	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	580 DNQ	300	1800	
				Period Mean	580 DNQ			
				Period Max	580 DNQ			
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	14000	260	1500
					Period Mean	14000		
					Period Max	14000		
Endosulfan Sulfate	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	290	1800	
				Period Mean	<290			
				Period Max	<290			
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	570 DNQ	250	1500
					Period Mean	570 DNQ		
					Period Max	570 DNQ		
Endrin	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	320	1800	
				Period Mean	<320			
				Period Max	<320			
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	280	1500
					Period Mean	<280		
					Period Max	<280		
Endrin Aldehyde	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	180	1800	
				Period Mean	<180			
				Period Max	<180			
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	150	1500
					Period Mean	<150		
					Period Max	<150		
Endrin Ketone	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	510	1800	
				Period Mean	<510			
				Period Max	<510			
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	440	1500
					Period Mean	<440		
					Period Max	<440		
gamma-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	480	1800	
				Period Mean	<480			
				Period Max	<480			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	420	1500
					Period Mean	<420		
					Period Max	<420		
Heptachlor		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	220	1800
					Period Mean	<220		
					Period Max	<220		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	190	1500
					Period Mean	<190		
					Period Max	<190		
Heptachlor Epoxide		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	5000	440	1800
					Period Mean	5000		
					Period Max	5000		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	380	1500
					Period Mean	<380		
					Period Max	<380		
Kepone		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	26000	78000
					Period Mean	<26000		
					Period Max	<26000		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	23000	68000
					Period Mean	<23000		
					Period Max	<23000		
Methoxychlor		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	470	3400
					Period Mean	<470		
					Period Max	<470		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	410	3000
					Period Mean	<410		
					Period Max	<410		
Mirex		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	280	1800
					Period Mean	<280		
					Period Max	<280		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	240	1500
					Period Mean	<240		
					Period Max	<240		
o,p'-DDD		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	190	1800
					Period Mean	<190		
					Period Max	<190		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	160	1500
					Period Mean	<160		
					Period Max	<160		
o,p'-DDE		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	340	1800
					Period Mean	<340		
					Period Max	<340		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	290	1500
					Period Mean	<290		
					Period Max	<290		
o,p'-DDT		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	280	1800
					Period Mean	<280		
					Period Max	<280		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	240	1500
					Period Mean	<240		
					Period Max	<240		
p,p'-DDD		EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	570	1800
					Period Mean	<570		
					Period Max	<570		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	490	1500
					Period Mean	<490		
					Period Max	<490		

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	p,p'-DDE	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	250	1800
					Period Mean	<250		
					Period Max	<250		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	210	1500
					Period Mean	<210		
					Period Max	<210		
	p,p'-DDT	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	610	1800
					Period Mean	<610		
					Period Max	<610		
		EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	530	1500
					Period Mean	<530		
					Period Max	<530		
Toxaphene	EPA 8081A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	16000	69000	
				Period Mean	<16000			
				Period Max	<16000			
	EPA 8081A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	14000	60000	
				Period Mean	<14000			
				Period Max	<14000			
PCBs	PCB 1016	EPA 8082	µg/kg dry	Plant 1 Cake	01/23/2018	ND	140	400
					Period Mean	<140		
					Period Max	<140		
		EPA 8082	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	360
					Period Mean	<120		
					Period Max	<120		
	PCB 1221	EPA 8082	µg/kg dry	Plant 1 Cake	01/23/2018	ND	140	400
					Period Mean	<140		
					Period Max	<140		
		EPA 8082	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	360
					Period Mean	<120		
					Period Max	<120		
	PCB 1232	EPA 8082	µg/kg dry	Plant 1 Cake	01/23/2018	ND	140	400
					Period Mean	<140		
					Period Max	<140		
		EPA 8082	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	360
					Period Mean	<120		
					Period Max	<120		
	PCB 1242	EPA 8082	µg/kg dry	Plant 1 Cake	01/23/2018	ND	140	400
					Period Mean	<140		
					Period Max	<140		
		EPA 8082	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	360
					Period Mean	<120		
					Period Max	<120		
PCB 1248	EPA 8082	µg/kg dry	Plant 1 Cake	01/23/2018	ND	140	400	
				Period Mean	<140			
				Period Max	<140			
	EPA 8082	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	360	
				Period Mean	<120			
				Period Max	<120			
PCB 1254	EPA 8082	µg/kg dry	Plant 1 Cake	01/23/2018	ND	140	400	
				Period Mean	<140			
				Period Max	<140			
	EPA 8082	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	360	
				Period Mean	<120			
				Period Max	<120			
PCB 1260	EPA 8082	µg/kg dry	Plant 1 Cake	01/23/2018	ND	140	400	
				Period Mean	<140			
				Period Max	<140			

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8082	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	360
		Period Mean	<120					
		Period Max	<120					
	PCB_HR_DM	EPA 8082	µg/kg dry	Plant 1 Cake	01/23/2018	ND	140	400
		Period Mean	<140					
		Period Max	<140					
		EPA 8082	µg/kg dry	Plant 2 Cake	01/23/2018	ND	120	360
		Period Mean	<120					
		Period Max	<120					
Herbicides	2,4,5-TP (Silvex)	EPA 8151A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	8.6	45
		Period Mean	<8.6					
		Period Max	<8.6					
		EPA 8151A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	7.3	38
		Period Mean	<7.3					
		Period Max	<7.3					
	2,4-D	EPA 8151A	µg/kg dry	Plant 1 Cake	01/23/2018	290	27	45
		Period Mean	290					
		Period Max	290					
		EPA 8151A	µg/kg dry	Plant 2 Cake	01/23/2018	1300	23	38
		Period Mean	1300					
		Period Max	1300					
Pentachlorophenol	EPA 8151A	µg/kg dry	Plant 1 Cake	01/23/2018	ND	2.3	45	
	Period Mean	<2.3						
	Period Max	<2.3						
	EPA 8151A	µg/kg dry	Plant 2 Cake	01/23/2018	ND	1.9	38	
	Period Mean	<1.9						
	Period Max	<1.9						
Dioxins/Furans	2,3,7,8-TCDD	EPA 1613B	pg/g dry	Plant 1 Cake	01/23/2018	ND	0.70	5.5
		Period Mean	<0.70					
		Period Max	<0.70					
		EPA 1613B	pg/g dry	Plant 2 Cake	01/23/2018	ND	1.1	4.8
		Period Mean	<1.1					
Period Max	<1.1							
Tentatively Identified Compounds	17-(1,5-DIMETHYLHEXYL)-10,13-DIMETHYLHEX-9-OCTADECENOIC ACID, (E)-	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	650000	--	4100
		Period Mean	650000					
		Period Max	650000					
		EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	86000	--	4100
		Period Mean	86000					
		Period Max	86000					
	Cholest-4-en-3-one	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	79000	--	7000
		Period Mean	79000					
		Period Max	79000					
	Docosane	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	46000	--	7000
		Period Mean	46000					
		Period Max	46000					
	Heneicosane	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	22000	--	4100
		Period Mean	22000					
		Period Max	22000					
	Hexacosane	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	21000	--	4100
		Period Mean	21000					
		Period Max	21000					
	n-Hexadecanoic acid	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	87000	--	4100
		Period Mean	87000					
Period Max		87000						
	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	180000	--	7000	
	Period Mean	180000						
	Period Max	180000						

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - January - February**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	OCTADECANOIC ACID	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	57000	--	7000
					Period Mean	57000		
					Period Max	57000		
	Oleic Acid	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	130000	--	7000
					Period Mean	130000		
					Period Max	130000		
	STIGMAST-4-EN-3-ONE	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	32000	--	4100
					Period Mean	32000		
					Period Max	32000		
UNKNOWN	EPA 8270C	µg/kg dry	Plant 1 Cake	01/23/2018	650000	--	4100	
				Period Mean	650000			
				Period Max	650000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	01/23/2018	65000	--	7000	
				Period Mean	65000			
				Period Max	65000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
General Chemistry	Ammonia-N	SM 4500 NH3 G	mg/kg dry weight	Plant 1 Cake	03/20/2018	6700	280	1400
					03/27/2018	6000	270	1300
					04/17/2018	6500	280	1400
					04/24/2018	6100	270	1400
					Period Mean	6300		
					Period Max	6700		
					03/20/2018	5500	240	1200
					03/27/2018	5400	230	1100
	04/17/2018	5900	240	1200				
	04/24/2018	5600	250	1300				
	Period Mean	5600						
	Period Max	5900						
	Hexavalent Chromium	EPA 7196A	mg/kg dry weight	Plant 1 Cake	04/17/2018	ND	14	28
					Period Mean	<14		
					Period Max	<14		
		EPA 7196A	mg/kg dry weight	Plant 2 Cake	04/17/2018	ND	12	24
Period Mean					<12			
Period Max					<12			
Kjeldahl Nitrogen	EPA 351.2	mg/kg dry weight	Plant 1 Cake	03/20/2018	72000	1900	5300	
				03/27/2018	52000	8300	11000	
				04/17/2018	55000	8000	11000	
				04/24/2018	58000	7900	10000	
				Period Mean	59000			
				Period Max	72000			
	EPA 351.2	mg/kg dry weight	Plant 2 Cake	03/20/2018	58000	1700	4700	
				03/27/2018	37000	7500	10000	
				04/17/2018	51000	6200	8300	
				04/24/2018	48000	7000	9400	
				Period Mean	48000			
				Period Max	58000			
Nitrate-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	03/20/2018	ND	4.5	6.2	
				03/27/2018	ND	4.3	5.9	
				04/17/2018	ND	4.5	6.2	
				04/24/2018	ND	4.4	6.0	
				Period Mean	<4.5			
				Period Max	<4.5			
	EPA 300.0	mg/kg dry weight	Plant 2 Cake	03/20/2018	ND	3.9	5.3	
				03/27/2018	ND	3.7	5.1	
				04/17/2018	ND	3.8	5.3	
				04/24/2018	ND	4.1	5.7	
				Period Mean	<4.1			
				Period Max	<4.1			
Nitrite-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	03/20/2018	ND	6.2	8.5	
				03/27/2018	ND	5.9	8.1	
				04/17/2018	ND	6.2	8.4	
				04/24/2018	ND	6.0	8.2	
				Period Mean	<6.2			
				Period Max	<6.2			
	EPA 300.0	mg/kg dry weight	Plant 2 Cake	03/20/2018	ND	5.3	7.3	
				03/27/2018	ND	5.1	6.9	
				04/17/2018	ND	5.3	7.2	
				04/24/2018	ND	5.7	7.7	
				Period Mean	<5.7			
				Period Max	<5.7			
Organic Lead	HML 939-M	mg/kg dry weight	Plant 1 Cake	04/17/2018	ND	0.13	0.31	
				Period Mean	<0.13			
				Period Max	<0.13			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL			
		HML 939-M	mg/kg dry weight	Plant 2 Cake	04/17/2018	ND	0.11	0.27			
					Period Mean	<0.11					
					Period Max	<0.11					
	Organic Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	03/20/2018	65000	--	--			
					03/27/2018	46000	--	--			
					04/17/2018	49000	--	--			
					04/24/2018	52000	--	--			
					Period Mean	53000					
					Period Max	65000					
					CALC	mg/kg dry weight	Plant 2 Cake	03/20/2018	53000	--	--
								03/27/2018	32000	--	--
	04/17/2018	45000	--	--							
	04/24/2018	42000	--	--							
	Period Mean	43000									
	Period Max	53000									
	pH	EPA 9045C	pH units	Plant 1 Cake				03/20/2018	8.0	0.10	0.1
					03/27/2018	7.9	0.10	0.1			
					04/17/2018	8.2	0.10	0.1			
					04/24/2018	8.0	0.10	0.1			
Period Mean					8.0						
EPA 9045C		pH units	Plant 2 Cake	03/20/2018	8.1	0.10	0.1				
				03/27/2018	8.0	0.10	0.1				
				04/17/2018	8.2	0.10	0.1				
				04/24/2018	8.0	0.10	0.1				
				Period Mean	8.1						
Total Cyanide	EPA 9014	mg/kg dry weight	Plant 1 Cake	04/17/2018	ND	2.4	2.8				
				Period Mean	<2.4						
EPA 9014	mg/kg dry weight	Plant 2 Cake	04/17/2018	2.3 DNQ	2.1	2.4					
			Period Mean	2.3 DNQ							
			Period Max	2.3 DNQ							
Total Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	03/20/2018	72000	--	--				
				03/27/2018	52000	--	--				
				04/17/2018	55000	--	--				
				04/24/2018	58000	--	--				
				Period Mean	59000						
	CALC	mg/kg dry weight	Plant 2 Cake	03/20/2018	58000	--	--				
				03/27/2018	37000	--	--				
				04/17/2018	51000	--	--				
				04/24/2018	48000	--	--				
				Period Mean	48000						
Total Solids	SM 2540G	%	Plant 1 Cake	03/20/2018	18	0.050	0.050				
				03/27/2018	19	0.050	0.050				
				04/17/2018	18	0.050	0.050				
				04/24/2018	18	0.050	0.050				
				Period Mean	18						
	SM 2540G	%	Plant 2 Cake	03/20/2018	21	0.050	0.050				
				03/27/2018	22	0.050	0.050				
				04/17/2018	21	0.050	0.050				
				04/24/2018	20	0.050	0.050				
				Period Mean	21						
Period Max	22										

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Trace Elements	Antimony	EPA 6010B	mg/kg dry weight	Plant 1 Cake	04/17/2018	ND	2.0	28
					Period Mean	<2.0		
					Period Max	<2.0		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	04/17/2018	ND	1.8	24
					Period Mean	<1.8		
					Period Max	<1.8		
	Arsenic	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	11 DNQ	3.1	17
					03/27/2018	9.2 DNQ	2.9	16
					04/17/2018	15 DNQ	3.0	17
					04/24/2018	17	3.0	16
					Period Mean	13 DNQ		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	8.8 DNQ	2.6	14
					03/27/2018	15	2.5	14
					04/17/2018	14	2.7	14
					04/24/2018	17	2.8	15
					Period Mean	14 DNQ		
Beryllium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	04/17/2018	ND	0.067	2.8	
				Period Mean	<0.067			
				Period Max	<0.067			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	04/17/2018	ND	0.058	2.4	
				Period Mean	<0.058			
				Period Max	<0.058			
Cadmium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	1.8 DNQ	0.14	2.8	
				03/27/2018	1.6 DNQ	0.13	2.6	
				04/17/2018	2.1 DNQ	0.14	2.8	
				04/24/2018	2.3 DNQ	0.14	2.7	
				Period Mean	2.0 DNQ			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	3.7	0.12	2.4	
				03/27/2018	4.4	0.11	2.3	
				04/17/2018	3.3	0.12	2.4	
				04/24/2018	3.6	0.12	2.5	
				Period Mean	3.8			
Chromium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	29	1.2	11	
				03/27/2018	25	1.1	10	
				04/17/2018	37	1.2	11	
				04/24/2018	36	1.2	11	
				Period Mean	32			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	34	1.0	9.5	
				03/27/2018	44	0.99	9.2	
				04/17/2018	45	1.0	9.6	
				04/24/2018	46	1.1	10	
				Period Mean	42			
Copper	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	320	2.5	14	
				03/27/2018	310	2.3	13	
				04/17/2018	480	2.4	14	
				04/24/2018	500	2.4	14	
				Period Mean	400			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	310	2.1	12	
				03/27/2018	440	2.0	11	
				04/17/2018	490	2.1	12	
				Period Mean	400			
				Period Max	500			



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Iron	EPA 6010B	mg/kg dry weight	Plant 1 Cake	04/24/2018	540	2.2	13	
				Period Mean	440			
				Period Max	540			
				03/20/2018	44000	12	56	
				03/27/2018	45000	12	52	
				04/17/2018	73000	12	55	
	04/24/2018	58000	12	55				
	Period Mean	55000						
	Period Max	73000						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	50000	11	48	
				03/27/2018	65000	10	46	
				04/17/2018	69000	11	48	
				04/24/2018	73000	11	50	
				Period Mean	64000			
Period Max				73000				
Lead	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	8.2	0.76	5.6	
				03/27/2018	9.5	0.71	5.2	
				04/17/2018	12	0.76	5.5	
				04/24/2018	26	0.75	5.5	
				Period Mean	14			
	Period Max	26						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	9.9	0.65	4.8	
				03/27/2018	10	0.62	4.6	
				04/17/2018	16	0.66	4.8	
				04/24/2018	16	0.69	5.0	
Period Mean				13				
Period Max	16							
Magnesium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	3900	19	140	
				03/27/2018	4500	17	130	
				04/17/2018	6900	18	140	
				04/24/2018	5600	18	140	
				Period Mean	5200			
	Period Max	6900						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	5000	16	120	
				03/27/2018	7000	15	110	
				04/17/2018	7100	16	120	
				04/24/2018	7900	17	130	
Period Mean				6800				
Period Max	7900							
Mercury	EPA 7471A	mg/kg dry weight	Plant 1 Cake	03/20/2018	1.3	0.066	0.11	
				03/27/2018	0.65	0.063	0.11	
				04/17/2018	0.78	0.13	0.22	
				04/24/2018	0.75	0.065	0.11	
				Period Mean	0.87			
	Period Max	1.3						
	EPA 7471A	mg/kg dry weight	Plant 2 Cake	03/20/2018	0.77	0.058	0.097	
				03/27/2018	0.70	0.054	0.090	
				04/17/2018	0.97	0.12	0.19	
				04/24/2018	0.86	0.062	0.10	
Period Mean				0.82				
Period Max	0.97							
Molybdenum	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	10 DNQ	0.32	11	
				03/27/2018	9.9 DNQ	0.30	10	
				04/17/2018	15	0.31	11	
				04/24/2018	17	0.31	11	
				Period Mean	13 DNQ			
				Period Max	17			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Nickel	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	11	0.27	9.5	
				03/27/2018	16	0.26	9.2	
				04/17/2018	17	0.27	9.6	
				04/24/2018	19	0.28	10	
				Period Mean	16			
				Period Max	19			
	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	27	1.0	11	
				03/27/2018	36	0.94	10	
				04/17/2018	33	0.99	11	
				04/24/2018	34	0.99	11	
				Period Mean	32			
				Period Max	36			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	29	0.86	9.5	
				03/27/2018	37	0.82	9.2	
				04/17/2018	38	0.86	9.6	
				04/24/2018	40	0.90	10	
				Period Mean	36			
				Period Max	40			
Selenium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	ND	3.1	28	
				03/27/2018	ND	2.9	26	
				04/17/2018	ND	3.1	28	
				04/24/2018	ND	3.1	27	
				Period Mean	<3.1			
				Period Max	<3.1			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	ND	2.7	24	
				03/27/2018	ND	2.6	23	
				04/17/2018	ND	2.7	24	
				04/24/2018	ND	2.8	25	
				Period Mean	<2.8			
				Period Max	<2.8			
Silver	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	3.6 DNQ	0.79	14	
				03/27/2018	3.2 DNQ	0.74	13	
				04/17/2018	4.6 DNQ	0.78	14	
				04/24/2018	5.5 DNQ	0.78	14	
				Period Mean	4.2 DNQ			
				Period Max	5.5 DNQ			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	3.3 DNQ	0.67	12	
				03/27/2018	5.2 DNQ	0.65	11	
				04/17/2018	4.3 DNQ	0.68	12	
				04/24/2018	5.7 DNQ	0.71	13	
				Period Mean	4.6 DNQ			
				Period Max	5.7 DNQ			
Thallium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	04/17/2018	ND	1.8	28	
				Period Mean	<1.8			
				Period Max	<1.8			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	04/17/2018	ND	1.6	24	
				Period Mean	<1.6			
				Period Max	<1.6			
Zinc	EPA 6010B	mg/kg dry weight	Plant 1 Cake	03/20/2018	480	9.6	28	
				03/27/2018	450	9.0	26	
				04/17/2018	620	9.5	28	
				04/24/2018	630	9.5	27	
				Period Mean	540			
				Period Max	630			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	03/20/2018	520	8.2	24	
				03/27/2018	650	7.9	23	
				04/17/2018	750	8.3	24	

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
					04/24/2018	780	8.7	25
					Period Mean	680		
					Period Max	780		
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
	1,1,1-Trichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	1,1,2,2-Tetrachloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	1,1,2-Trichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,1-Dichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,1-Dichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120	
				Period Mean	<23			
				Period Max	<23			
1,1-Dichloropropene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,2,3-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120	
				Period Mean	<23			
				Period Max	<23			
1,2,3-Trichloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	270	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	230	
				Period Mean	<23			
				Period Max	<23			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
1,2,4-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120	
				Period Mean	<23			
				Period Max	<23			
1,2,4-Trimethylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	28 DNQ	27	54	
				Period Mean	28 DNQ			
				Period Max	28 DNQ			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	50	23	46	
				Period Mean	50			
				Period Max	50			
1,2-Dibromo-3-chloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	54	140	
				Period Mean	<54			
				Period Max	<54			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	46	120	
				Period Mean	<46			
				Period Max	<46			
1,2-Dibromoethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,2-Dichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,2-Dichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,2-Dichloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,3,5-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,3,5-Trimethylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,3-Dichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,3-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,4-Dichlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
2,2-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
2-Chlorotoluene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
2-Hexanone		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	140	680
					Period Mean	<140		
					Period Max	<140		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	120	580
					Period Mean	<120		
					Period Max	<120		
4-Chlorotoluene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
Acrolein		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	270	2700
					Period Mean	<270		
					Period Max	<270		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	230	2300
					Period Mean	<230		
					Period Max	<230		
Acrylonitrile		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	540	2700
					Period Mean	<540		
					Period Max	<540		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	460	2300
					Period Mean	<460		
					Period Max	<460		
Benzene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Bromobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
Bromochloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
Bromodichloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
Bromoform	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	54	140	
				Period Mean	<54			
				Period Max	<54			
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	46	120
					Period Mean	<46		
					Period Max	<46		
Bromomethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
Carbon tetrachloride	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
Chlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
Chloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	54	140	
				Period Mean	<54			
				Period Max	<54			
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	46	120
					Period Mean	<46		
					Period Max	<46		
Chloroform	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
Chloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	23 DNQ	23	120
					Period Mean	23 DNQ		
					Period Max	23 DNQ		
cis-1,2-Dichloroethene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
cis-1,3-Dichloropropene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
Dibromochloromethane		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
Dibromomethane		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
Dichlorodifluoromethane		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	54	140
					Period Mean	<54		
					Period Max	<54		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	46	120
					Period Mean	<46		
					Period Max	<46		
Ethylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	34 DNQ	27	54
					Period Mean	34 DNQ		
					Period Max	34 DNQ		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	28 DNQ	23	46
					Period Mean	28 DNQ		
					Period Max	28 DNQ		
Hexachlorobutadiene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
Isobutyl alcohol		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	680	1400
					Period Mean	<680		
					Period Max	<680		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	580	1200
					Period Mean	<580		
					Period Max	<580		
Isopropylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
m,p-Xylenes	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	54	110	
				Period Mean	<54			
				Period Max	<54			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	46	92	
				Period Mean	<46			
				Period Max	<46			
Methyl ethyl ketone	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	2600	140	270	
				Period Mean	2600			
				Period Max	2600			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	3200	120	230	
				Period Mean	3200			
				Period Max	3200			
Methylene Chloride	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	240 DNQ	140	540	
				Period Mean	240 DNQ			
				Period Max	240 DNQ			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	210 DNQ	120	460	
				Period Mean	210 DNQ			
				Period Max	210 DNQ			
MIBK	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	68	140	
				Period Mean	<68			
				Period Max	<68			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	58	120	
				Period Mean	<58			
				Period Max	<58			
Naphthalene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	54	140	
				Period Mean	<54			
				Period Max	<54			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	46	120	
				Period Mean	<46			
				Period Max	<46			
n-Butylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120	
				Period Mean	<23			
				Period Max	<23			
n-Propylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	52 DNQ	27	54	
				Period Mean	52 DNQ			
				Period Max	52 DNQ			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	26 DNQ	23	46	
				Period Mean	26 DNQ			
				Period Max	26 DNQ			
o-Xylene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
sec-Butylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120	
				Period Mean	<23			
				Period Max	<23			
Styrene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	tert-Butylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120
					Period Mean	<23		
					Period Max	<23		
	Tetrachloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	Toluene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	72	27	54
					Period Mean	72		
					Period Max	72		
		EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	62	23	46
					Period Mean	62		
					Period Max	62		
	trans-1,2-Dichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54
					Period Mean	<27		
					Period Max	<27		
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
trans-1,3-Dichloropropene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Trichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	54	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Trichlorofluoroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120	
				Period Mean	<23			
				Period Max	<23			
Vinyl chloride	EPA 8260B	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27	140	
				Period Mean	<27			
				Period Max	<27			
	EPA 8260B	µg/kg dry	Plant 2 Cake	04/17/2018	ND	23	120	
				Period Mean	<23			
				Period Max	<23			
Semi-Volatile Organic Compounds	1,2,4-Trichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
Period Max	<13000							

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	1,2-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
	1,3-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
	1,4-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
	2,4,5-Trichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	30000	56000
					Period Mean	<30000		
					Period Max	<30000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	26000	48000
					Period Mean	<26000		
					Period Max	<26000		
	2,4,6-Trichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	8400	62000
					Period Mean	<8400		
					Period Max	<8400		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	7200	53000
					Period Mean	<7200		
					Period Max	<7200		
	2,4-Dichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000
					Period Mean	<7500		
					Period Max	<7500		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
					Period Mean	<6500		
					Period Max	<6500		
	2,4-Dimethylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
	2,4-Dinitrophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	110000	220000
					Period Mean	<110000		
					Period Max	<110000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	97000	190000
					Period Mean	<97000		
					Period Max	<97000		
	2,4-Dinitrotoluene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	9000	37000
					Period Mean	<9000		
					Period Max	<9000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	7700	32000
					Period Mean	<7700		
					Period Max	<7700		
	2,6-Dinitrotoluene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	11000	37000
					Period Mean	<11000		
					Period Max	<11000		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	9200	32000
					Period Mean	<9200		
					Period Max	<9200		
2-Chloronaphthalene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000
					Period Mean	<7500		
					Period Max	<7500		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
					Period Mean	<6500		
					Period Max	<6500		
2-Chlorophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
2-Methylnaphthalene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
2-Methylphenol		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	9000	37000
					Period Mean	<9000		
					Period Max	<9000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	7700	32000
					Period Mean	<7700		
					Period Max	<7700		
2-Nitroaniline		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000
					Period Mean	<7500		
					Period Max	<7500		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
					Period Mean	<6500		
					Period Max	<6500		
2-Nitrophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
3,3-Dichlorobenzidine		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	17000	93000
					Period Mean	<17000		
					Period Max	<17000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	14000	80000
					Period Mean	<14000		
					Period Max	<14000		
3-Nitroaniline		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
4,6-Dinitro-2-methylphenol		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	47000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	41000
					Period Mean	<13000		
					Period Max	<13000		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	4-Bromophenyl phenyl ether	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	8400	37000
					Period Mean	<8400		
					Period Max	<8400		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	7200	32000
					Period Mean	<7200		
					Period Max	<7200		
4-Chloro-3-methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	22000	45000	
				Period Mean	<22000			
				Period Max	<22000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	19000	39000
					Period Mean	<19000		
					Period Max	<19000		
4-Chloroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	56000	110000	
				Period Mean	<56000			
				Period Max	<56000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	48000	97000
					Period Mean	<48000		
					Period Max	<48000		
4-Chlorophenyl phenyl ether	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	62000	120000	
				Period Mean	<62000			
				Period Max	<62000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	53000	110000
					Period Mean	<53000		
					Period Max	<53000		
4-Methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
4-Nitroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	93000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	80000
					Period Mean	<13000		
					Period Max	<13000		
4-Nitrophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	160000	320000	
				Period Mean	<160000			
				Period Max	<160000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	140000	280000
					Period Mean	<140000		
					Period Max	<140000		
Acenaphthene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	20000	39000	
				Period Mean	<20000			
				Period Max	<20000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	17000	34000
					Period Mean	<17000		
					Period Max	<17000		
Acenaphthylene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000	
				Period Mean	<7800			
				Period Max	<7800			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Aniline	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	56000	110000	
				Period Mean	<56000			
				Period Max	<56000			

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	48000	97000
					Period Mean	<48000		
					Period Max	<48000		
Anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	9000	37000
					Period Mean	<9000		
					Period Max	<9000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	7700	32000
					Period Mean	<7700		
					Period Max	<7700		
Azobenzene/1,2-Diphenylhydrazine		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Benz(a)anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Benzidine		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	120000	240000
					Period Mean	<120000		
					Period Max	<120000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	100000	200000
					Period Mean	<100000		
					Period Max	<100000		
Benzo(a)pyrene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000
					Period Mean	<7500		
					Period Max	<7500		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
					Period Mean	<6500		
					Period Max	<6500		
Benzo(b)fluoranthene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Benzo(g,h,i)perylene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	12000	37000
					Period Mean	<12000		
					Period Max	<12000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	11000	32000
					Period Mean	<11000		
					Period Max	<11000		
Benzo(k)fluoranthene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Benzoic acid		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	53000	110000
					Period Mean	<53000		
					Period Max	<53000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	46000	92000
					Period Mean	<46000		
					Period Max	<46000		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Benzyl alcohol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	190000	380000
					Period Mean	<190000		
					Period Max	<190000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	160000	330000
					Period Mean	<160000		
					Period Max	<160000		
Bis(2-chloroethoxy)methane	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
Bis(2-chloroethyl)ether	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000	
				Period Mean	<7800			
				Period Max	<7800			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Bis(2-chloroisopropyl) ether	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
Bis(2-ethylhexyl)phthalate	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	40000	10000	37000	
				Period Mean	40000			
				Period Max	40000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	31000 DNQ	8700	32000
					Period Mean	31000 DNQ		
					Period Max	31000 DNQ		
Butyl benzyl phthalate	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	9000	37000	
				Period Mean	<9000			
				Period Max	<9000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	7700	32000
					Period Mean	<7700		
					Period Max	<7700		
Chrysene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	8400	37000	
				Period Mean	<8400			
				Period Max	<8400			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	7200	32000
					Period Mean	<7200		
					Period Max	<7200		
Dibenz(a,h)anthracene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	11000	47000	
				Period Mean	<11000			
				Period Max	<11000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	9700	41000
					Period Mean	<9700		
					Period Max	<9700		
Dibenzofuran	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000	
				Period Mean	<7500			
				Period Max	<7500			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
					Period Mean	<6500		
					Period Max	<6500		
Diethyl phthalate	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	11000	37000	
				Period Mean	<11000			
				Period Max	<11000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	9200	32000
					Period Mean	<9200		
					Period Max	<9200		
Dimethyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000
					Period Mean	<7500		
					Period Max	<7500		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
					Period Mean	<6500		
					Period Max	<6500		
Di-n-butyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	10000	37000
					Period Mean	<10000		
					Period Max	<10000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	8700	32000
					Period Mean	<8700		
					Period Max	<8700		
Di-n-octyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	10000	37000
					Period Mean	<10000		
					Period Max	<10000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	8700	32000
					Period Mean	<8700		
					Period Max	<8700		
Fluoranthene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Fluorene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Hexachlorobenzene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000
					Period Mean	<7800		
					Period Max	<7800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
Hexachlorobutadiene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
Hexachlorocyclopentadiene		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	93000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	80000
					Period Mean	<13000		
					Period Max	<13000		
Hexachloroethane		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Indeno(1,2,3-cd)pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
Isophorone	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000	
				Period Mean	<7500			
				Period Max	<7500			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
					Period Mean	<6500		
					Period Max	<6500		
Kepone	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	110000	450000	
				Period Mean	<110000			
				Period Max	<110000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	97000	390000
					Period Mean	<97000		
					Period Max	<97000		
Naphthalene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000	
				Period Mean	<7500			
				Period Max	<7500			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
					Period Mean	<6500		
					Period Max	<6500		
Nitrobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000	
				Period Mean	<7800			
				Period Max	<7800			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
N-Nitrosodimethylamine	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	37000	
				Period Mean	<7800			
				Period Max	<7800			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	32000
					Period Mean	<6800		
					Period Max	<6800		
N-Nitroso-di-n-propylamine	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7800	28000	
				Period Mean	<7800			
				Period Max	<7800			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6800	24000
					Period Mean	<6800		
					Period Max	<6800		
N-Nitrosodiphenylamine	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	42000	84000	
				Period Mean	<42000			
				Period Max	<42000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	36000	72000
					Period Mean	<36000		
					Period Max	<36000		
Pentachlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	38000	93000	
				Period Mean	<38000			
				Period Max	<38000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	33000	80000
					Period Mean	<33000		
					Period Max	<33000		
Phenanthrene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	7500	37000	
				Period Mean	<7500			
				Period Max	<7500			



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	6500	32000
		Period Mean	<6500					
		Period Max	<6500					
	Phenol	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	10000	37000
		Period Mean	<10000					
		Period Max	<10000					
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	8700	32000
		Period Mean	<8700					
		Period Max	<8700					
	Pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	15000	37000
		Period Mean	<15000					
		Period Max	<15000					
	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	13000	32000	
	Period Mean	<13000						
	Period Max	<13000						
Pyridine	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	ND	17000	38000	
	Period Mean	<17000						
	Period Max	<17000						
	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	ND	14000	33000	
	Period Mean	<14000						
	Period Max	<14000						
Organochlorine Pesticides	Aldrin	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	270	1800
		Period Mean	<270					
		Period Max	<270					
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	240	1700
		Period Mean	<240					
		Period Max	<240					
	alpha-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	230	1800
		Period Mean	<230					
		Period Max	<230					
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	210	1700
		Period Mean	<210					
		Period Max	<210					
	beta-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	720	1800
		Period Mean	<720					
		Period Max	<720					
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	650	1700
		Period Mean	<650					
		Period Max	<650					
	Chlordane	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	8500	27000
		Period Mean	<8500					
		Period Max	<8500					
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	7600	24000
		Period Mean	<7600					
		Period Max	<7600					
delta-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	440	1800	
	Period Mean	<440						
	Period Max	<440						
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	390	1700	
	Period Mean	<390						
	Period Max	<390						
Dieldrin	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	230	1800	
	Period Mean	<230						
	Period Max	<230						
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	200	1700	
	Period Mean	<200						
	Period Max	<200						

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Endosulfan 1	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	190	1800	
				Period Mean	<190			
				Period Max	<190			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	170	1700	
				Period Mean	<170			
				Period Max	<170			
Endosulfan 2	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	310	1800	
				Period Mean	<310			
				Period Max	<310			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	280	1700	
				Period Mean	<280			
				Period Max	<280			
Endosulfan Sulfate	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	300	1800	
				Period Mean	<300			
				Period Max	<300			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	270	1700	
				Period Mean	<270			
				Period Max	<270			
Endrin	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	330	1800	
				Period Mean	<330			
				Period Max	<330			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	300	1700	
				Period Mean	<300			
				Period Max	<300			
Endrin Aldehyde	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	280 DNQ	190	1800	
				Period Mean	280 DNQ			
				Period Max	280 DNQ			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	250 DNQ	170	1700	
				Period Mean	250 DNQ			
				Period Max	250 DNQ			
Endrin Ketone	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	530	1800	
				Period Mean	<530			
				Period Max	<530			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	470	1700	
				Period Mean	<470			
				Period Max	<470			
gamma-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	500	1800	
				Period Mean	<500			
				Period Max	<500			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	450	1700	
				Period Mean	<450			
				Period Max	<450			
Heptachlor	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	230	1800	
				Period Mean	<230			
				Period Max	<230			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	210	1700	
				Period Mean	<210			
				Period Max	<210			
Heptachlor Epoxide	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	460	1800	
				Period Mean	<460			
				Period Max	<460			
	EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	410	1700	
				Period Mean	<410			
				Period Max	<410			
Kepone	EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	27000	82000	
				Period Mean	<27000			
				Period Max	<27000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	24000	73000
					Period Mean	<24000		
					Period Max	<24000		
Methoxychlor		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	490	3600
					Period Mean	<490		
					Period Max	<490		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	440	3200
					Period Mean	<440		
					Period Max	<440		
Mirex		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	290	1800
					Period Mean	<290		
					Period Max	<290		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	260	1700
					Period Mean	<260		
					Period Max	<260		
o,p'-DDD		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	390	1800
					Period Mean	<390		
					Period Max	<390		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	350	1700
					Period Mean	<350		
					Period Max	<350		
o,p'-DDE		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	710	1800
					Period Mean	<710		
					Period Max	<710		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	1100 DNQ	630	1700
					Period Mean	1100 DNQ		
					Period Max	1100 DNQ		
o,p'-DDT		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	580	1800
					Period Mean	<580		
					Period Max	<580		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	510	1700
					Period Mean	<510		
					Period Max	<510		
p,p'-DDD		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	590	1800
					Period Mean	<590		
					Period Max	<590		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	530	1700
					Period Mean	<530		
					Period Max	<530		
p,p'-DDE		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	260	1800
					Period Mean	<260		
					Period Max	<260		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	230	1700
					Period Mean	<230		
					Period Max	<230		
p,p'-DDT		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	640	1800
					Period Mean	<640		
					Period Max	<640		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	570	1700
					Period Mean	<570		
					Period Max	<570		
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	1100.0	--	--
					Period Mean	1100		
					Period Max	1100		
Toxaphene		EPA 8081A	µg/kg dry	Plant 1 Cake	04/17/2018	ND	17000	73000
					Period Mean	<17000		
					Period Max	<17000		

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8081A	µg/kg dry	Plant 2 Cake	04/17/2018	ND	15000	65000
					Period Mean	<15000		
					Period Max	<15000		
PCBs	PCB 1016	EPA 8082	µg/kg dry	Plant 1 Cake	04/17/2018	ND	200	580
					Period Mean	<200		
					Period Max	<200		
					04/17/2018	ND	170	490
					Period Mean	<170		
					Period Max	<170		
	PCB 1221	EPA 8082	µg/kg dry	Plant 1 Cake	04/17/2018	ND	200	580
					Period Mean	<200		
					Period Max	<200		
					04/17/2018	ND	170	490
					Period Mean	<170		
					Period Max	<170		
	PCB 1232	EPA 8082	µg/kg dry	Plant 1 Cake	04/17/2018	ND	200	580
					Period Mean	<200		
					Period Max	<200		
					04/17/2018	ND	170	490
					Period Mean	<170		
					Period Max	<170		
	PCB 1242	EPA 8082	µg/kg dry	Plant 1 Cake	04/17/2018	ND	200	580
					Period Mean	<200		
					Period Max	<200		
					04/17/2018	ND	170	490
					Period Mean	<170		
					Period Max	<170		
PCB 1248	EPA 8082	µg/kg dry	Plant 1 Cake	04/17/2018	ND	200	580	
				Period Mean	<200			
				Period Max	<200			
				04/17/2018	ND	170	490	
				Period Mean	<170			
				Period Max	<170			
PCB 1254	EPA 8082	µg/kg dry	Plant 1 Cake	04/17/2018	ND	200	580	
				Period Mean	<200			
				Period Max	<200			
				04/17/2018	ND	170	490	
				Period Mean	<170			
				Period Max	<170			
PCB 1260	EPA 8082	µg/kg dry	Plant 1 Cake	04/17/2018	ND	200	580	
				Period Mean	<200			
				Period Max	<200			
				04/17/2018	ND	170	490	
				Period Mean	<170			
				Period Max	<170			
PCB_HR_DM	EPA 8082	µg/kg dry	Plant 1 Cake	04/17/2018	ND	200	580	
				Period Mean	<200			
				Period Max	<200			
				04/17/2018	ND	170	490	
				Period Mean	<170			
				Period Max	<170			
Dioxins/Furans	2,3,7,8-TCDD	EPA 1613B	pg/g dry	Plant 1 Cake	04/17/2018	4.7 DNQ	1.3	5.6
					Period Mean	4.7 DNQ		
					Period Max	4.7 DNQ		
					04/17/2018	ND	1.3	4.6
					Period Mean	<1.3		
					Period Max	<1.3		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - March - April

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Tentatively Identified Compounds	17-(1,5-DIMETHYLHEXYL)-10,13-DIMETHYL-9-OCTADECENOIC ACID, (E)-	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	670000	--	48000
					Period Mean	670000		
					Period Max	670000		
		EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	760000	--	56000
					Period Mean	760000		
					Period Max	760000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	730000	--	48000
					Period Mean	730000		
					Period Max	730000		
	Cholest-4-en-3-one	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	300000	--	48000
					Period Mean	300000		
					Period Max	300000		
	CHOLEST-5-EN-3-ONE	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	410000	--	56000
					Period Mean	410000		
					Period Max	410000		
	Cholestan-3-one	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	1000000	--	56000
					Period Mean	1000000		
					Period Max	1000000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	1300000	--	48000
					Period Mean	1300000		
					Period Max	1300000		
	CHOLESTANOL	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	1500000	--	48000
					Period Mean	1500000		
					Period Max	1500000		
n-Hexadecanoic acid	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	1200000	--	56000	
				Period Mean	1200000			
				Period Max	1200000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	1200000	--	48000	
				Period Mean	1200000			
				Period Max	1200000			
OCTADECANOIC ACID	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	390000	--	56000	
				Period Mean	390000			
				Period Max	390000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	350000	--	48000	
				Period Mean	350000			
				Period Max	350000			
Squalene	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	320000	--	56000	
				Period Mean	320000			
				Period Max	320000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	200000	--	48000	
				Period Mean	200000			
				Period Max	200000			
UNKNOWN	EPA 8270C	µg/kg dry	Plant 1 Cake	04/17/2018	310000	--	56000	
				Period Mean	310000			
				Period Max	310000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	04/17/2018	530000	--	48000	
				Period Mean	530000			
				Period Max	530000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - May - June

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
General Chemistry	Ammonia-N	SM 4500 NH3 G	mg/kg dry weight	Plant 1 Cake	05/15/2018	5900	270	1400
					05/22/2018	6700	280	1400
					06/12/2018	7100	290	1400
					06/19/2018	6000	250	1200
					Period Mean	6400		
					Period Max	7100		
	Ammonia-N	SM 4500 NH3 G	mg/kg dry weight	Plant 2 Cake	05/15/2018	5400	240	1200
					05/22/2018	5700	230	1100
					06/12/2018	5700	240	1200
					06/19/2018	6300	250	1200
					Period Mean	5800		
					Period Max	6300		
Kjeldahl Nitrogen	EPA 351.2	mg/kg dry weight	Plant 1 Cake	05/15/2018	54000	8500	11000	
				05/22/2018	54000	7000	9300	
				06/12/2018	61000	5800	7800	
				06/19/2018	57000	7400	9900	
				Period Mean	56000			
				Period Max	61000			
	Kjeldahl Nitrogen	EPA 351.2	mg/kg dry weight	Plant 2 Cake	05/15/2018	47000	6900	9300
					05/22/2018	50000	6600	8800
					06/12/2018	49000	5300	7000
					06/19/2018	49000	7200	9600
					Period Mean	49000		
					Period Max	50000		
Nitrate-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	05/15/2018	ND	4.4	6.0	
				05/22/2018	ND	4.5	6.2	
				06/12/2018	ND	4.6	6.3	
				06/19/2018	ND	4.0	5.5	
				Period Mean	<4.6			
				Period Max	<4.6			
	Nitrate-N	EPA 300.0	mg/kg dry weight	Plant 2 Cake	05/15/2018	ND	3.9	5.3
					05/22/2018	ND	3.7	5.0
					06/12/2018	ND	3.9	5.3
					06/19/2018	ND	4.0	5.4
					Period Mean	<4.0		
					Period Max	<4.0		
Nitrite-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	05/15/2018	11	6.0	8.2	
				05/22/2018	ND	6.2	8.4	
				06/12/2018	ND	6.3	8.6	
				06/19/2018	ND	5.5	7.5	
				Period Mean	7.2 DNQ			
				Period Max	11			
	Nitrite-N	EPA 300.0	mg/kg dry weight	Plant 2 Cake	05/15/2018	ND	5.3	7.3
					05/22/2018	ND	5.0	6.9
					06/12/2018	ND	5.3	7.2
					06/19/2018	ND	5.4	7.4
					Period Mean	<5.4		
					Period Max	<5.4		
Organic Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	05/15/2018	48000	--	--	
				05/22/2018	47000	--	--	
				06/12/2018	54000	--	--	
				06/19/2018	51000	--	--	
				Period Mean	50000			
	Period Max	54000						
	CALC	mg/kg dry weight	Plant 2 Cake	05/15/2018	42000	--	--	
				05/22/2018	44000	--	--	
				06/12/2018	43000	--	--	

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - May - June

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL			
	pH	EPA 9045C	pH units	Plant 1 Cake	06/19/2018	43000	--	--			
					Period Mean	43000					
					Period Max	44000					
					05/15/2018	7.9	0.10	0.1			
					05/22/2018	7.6	0.10	0.1			
					06/12/2018	7.7	0.10	0.1			
					06/19/2018	7.7	0.10	0.1			
					Period Mean	7.7					
					Period Max	7.9					
					05/15/2018	8.1	0.10	0.1			
	05/22/2018	7.6	0.10	0.1							
	06/12/2018	7.8	0.10	0.1							
	06/19/2018	7.8	0.10	0.1							
	Period Mean	7.8									
	Period Max	8.1									
	Total Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	05/15/2018	54000	--	--			
					05/22/2018	54000	--	--			
					06/12/2018	61000	--	--			
					06/19/2018	57000	--	--			
					Period Mean	56000					
Period Max		61000									
CALC		mg/kg dry weight	Plant 2 Cake	05/15/2018	47000	--	--				
				05/22/2018	50000	--	--				
				06/12/2018	49000	--	--				
				06/19/2018	49000	--	--				
	Period Mean			49000							
Period Max	50000										
Total Solids	SM 2540G	%	Plant 1 Cake	05/15/2018	18	0.050	0.050				
				05/22/2018	18	0.050	0.050				
				06/12/2018	17	0.050	0.050				
				06/19/2018	20	0.050	0.050				
				Period Mean	18						
	Period Max	20									
	SM 2540G	%	Plant 2 Cake	05/15/2018	20	0.050	0.050				
				05/22/2018	22	0.050	0.050				
				06/12/2018	21	0.050	0.050				
				06/19/2018	20	0.050	0.050				
Period Mean				21							
Period Max	22										
Trace Elements	Arsenic	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	16	3.0	16			
					05/22/2018	13 DNQ	3.1	17			
					06/12/2018	15	0.63	3.4			
					06/19/2018	22	2.8	15			
					Period Mean	16 DNQ					
					Period Max	22					
					EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	15	2.7	14
								05/22/2018	14	2.5	14
								06/12/2018	18 DNQ	11	58
								06/19/2018	21	2.7	15
	Period Mean	17 DNQ									
	Period Max	21									
	Cadmium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	1.9 DNQ	0.13	2.7			
					05/22/2018	1.8 DNQ	0.14	2.8			
					06/12/2018	1.7	0.028	0.57			
					06/19/2018	1.9 DNQ	0.12	2.5			
					Period Mean	1.8 DNQ					
					Period Max	1.7					

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - May - June

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	2.6	0.12	2.4
					05/22/2018	2.4	0.11	2.3
					06/12/2018	2.3	0.024	0.48
					06/19/2018	2.9	0.12	2.5
					Period Mean	2.6		
					Period Max	2.9		
	Chromium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	37	1.2	11
					05/22/2018	38	1.2	11
					06/12/2018	26	0.25	2.3
					06/19/2018	36	1.1	10
					Period Mean	34		
					Period Max	38		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	43	1.0	9.7
					05/22/2018	41	0.99	9.2
06/12/2018					32	0.21	1.9	
06/19/2018					44	1.1	9.8	
Period Mean					40			
Period Max					44			
Copper	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	500	2.4	14	
				05/22/2018	490	2.5	14	
				06/12/2018	400	0.51	2.9	
				06/19/2018	480	2.2	13	
				Period Mean	470			
	Period Max	500						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	500	2.1	12	
				05/22/2018	490	2.0	11	
				06/12/2018	380	0.42	2.4	
				06/19/2018	490	2.2	12	
Period Mean				460				
Period Max	500							
Iron	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	65000	12	54	
				05/22/2018	66000	13	56	
				06/12/2018	51000	2.6	11	
				06/19/2018	79000	11	50	
				Period Mean	65000			
	Period Max	79000						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	67000	11	48	
				05/22/2018	63000	10	46	
				06/12/2018	62000	43	190	
				06/19/2018	73000	11	49	
Period Mean				66000				
Period Max	73000							
Lead	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	14	0.75	5.4	
				05/22/2018	14	0.77	5.6	
				06/12/2018	11	0.16	1.1	
				06/19/2018	13	0.69	5.0	
				Period Mean	13			
	Period Max	14						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	15	0.66	4.8	
				05/22/2018	14	0.63	4.6	
				06/12/2018	11	0.13	0.96	
				06/19/2018	15	0.67	4.9	
Period Mean				14				
Period Max	15							
Magnesium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	5500	18	140	
				05/22/2018	5700	19	140	
				06/12/2018	5000	3.8	29	



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - May - June

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
					06/19/2018	7100	17	130
					Period Mean	5800		
					Period Max	7100		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	7300	16	120
					05/22/2018	7000	15	110
					06/12/2018	6100	3.2	24
					06/19/2018	7900	16	120
					Period Mean	7100		
					Period Max	7900		
Mercury	EPA 7471A	mg/kg dry weight	Plant 1 Cake	05/15/2018	1.2	0.065	0.11	
				05/22/2018	0.86	0.067	0.11	
				06/12/2018	2.0	0.068	0.11	
				06/19/2018	0.72	0.061	0.10	
				Period Mean	1.2			
	Period Max	2.0						
	EPA 7471A	mg/kg dry weight	Plant 2 Cake	05/15/2018	0.75	0.059	0.098	
				05/22/2018	0.78	0.057	0.094	
				06/12/2018	0.86	0.057	0.094	
				06/19/2018	0.98	0.059	0.098	
Period Mean				0.84				
Period Max	0.98							
Molybdenum	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	16	0.31	11	
				05/22/2018	16	0.32	11	
				06/12/2018	13	0.065	2.3	
				06/19/2018	18	0.28	10	
				Period Mean	16			
	Period Max	18						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	17	0.27	9.7	
				05/22/2018	17	0.26	9.2	
				06/12/2018	14	0.054	1.9	
				06/19/2018	21	0.28	9.8	
Period Mean				17				
Period Max	21							
Nickel	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	33	0.98	11	
				05/22/2018	34	1.0	11	
				06/12/2018	28	0.21	2.3	
				06/19/2018	40	0.90	10	
				Period Mean	34			
	Period Max	40						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	33	0.87	9.7	
				05/22/2018	33	0.82	9.2	
				06/12/2018	28	0.17	1.9	
				06/19/2018	39	0.88	9.8	
Period Mean				33				
Period Max	39							
Selenium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	ND	3.1	27	
				05/22/2018	ND	3.2	28	
				06/12/2018	ND	0.64	5.7	
				06/19/2018	ND	2.8	25	
				Period Mean	<3.2			
	Period Max	<3.2						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	ND	2.7	24	
				05/22/2018	ND	2.6	23	
				06/12/2018	ND	0.54	4.8	
				06/19/2018	ND	2.8	25	
Period Mean				<2.8				
Period Max	<2.8							

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - May - June

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL			
	Silver	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	4.9 DNQ	0.77	14			
					05/22/2018	4.0 DNQ	0.79	14			
					06/12/2018	3.1	0.16	2.9			
					06/19/2018	4.8 DNQ	0.71	13			
					Period Mean	4.2 DNQ					
					Period Max	3.1					
					EPA 6010B	mg/kg dry weight	Plant 2 Cake	05/15/2018	4.4 DNQ	0.68	12
								05/22/2018	3.4 DNQ	0.65	11
								06/12/2018	2.8	0.14	2.4
								06/19/2018	4.5 DNQ	0.69	12
	Period Mean	3.8 DNQ									
	Period Max	2.8									
	Zinc	EPA 6010B	mg/kg dry weight	Plant 1 Cake	05/15/2018	660	9.4	27			
					05/22/2018	610	9.7	28			
06/12/2018					530	2.0	5.7				
06/19/2018					670	8.6	25				
Period Mean					620						
Period Max					670						
EPA 6010B					mg/kg dry weight	Plant 2 Cake	05/15/2018	710	8.4	24	
							05/22/2018	650	7.9	23	
							06/12/2018	540	1.7	4.8	
							06/19/2018	760	8.5	25	
Period Mean	660										
Period Max	760										

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
General Chemistry	Ammonia-N	SM 4500 NH3 G	mg/kg dry weight	Plant 1 Cake	07/17/2018	5800	250	1200
					07/24/2018	5900	250	1300
					08/20/2018	6200	260	1300
					08/27/2018	6900	280	1400
					Period Mean	6200		
					Period Max	6900		
		SM 4500 NH3 G	mg/kg dry weight	Plant 2 Cake	07/17/2018	5200	230	1100
					07/24/2018	5300	230	1200
					08/20/2018	5500	240	1200
					08/27/2018	5800	230	1200
	Period Mean	5400						
	Period Max	5800						
	Fluoride	EPA 300.0	mg/kg dry weight	Plant 1 Cake	07/17/2018	17 DNQ	17	25
					Period Mean	17 DNQ		
					Period Max	17 DNQ		
		EPA 300.0	mg/kg dry weight	Plant 2 Cake	07/17/2018	19 DNQ	16	23
					Period Mean	19 DNQ		
					Period Max	19 DNQ		
Hexavalent Chromium	EPA 7196A	mg/kg dry weight	Plant 1 Cake	07/17/2018	ND	25	49	
				Period Mean	<25			
				Period Max	<25			
	EPA 7196A	mg/kg dry weight	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Kjeldahl Nitrogen	EPA 351.2	mg/kg dry weight	Plant 1 Cake	07/17/2018	55000	7500	10000	
				07/24/2018	52000	6500	8700	
				08/20/2018	62000	6300	8400	
				08/27/2018	56000	7300	9700	
				Period Mean	56000			
				Period Max	62000			
	EPA 351.2	mg/kg dry weight	Plant 2 Cake	07/17/2018	45000	6000	8000	
				07/24/2018	47000	6400	8500	
				08/20/2018	50000	7000	9300	
				08/27/2018	48000	6000	8000	
				Period Mean	48000			
				Period Max	50000			
Nitrate-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	07/17/2018	ND	4.0	5.5	
				07/24/2018	ND	4.0	5.6	
				08/20/2018	ND	4.2	5.8	
				08/27/2018	ND	4.5	6.1	
				Period Mean	<4.5			
				Period Max	<4.5			
	EPA 300.0	mg/kg dry weight	Plant 2 Cake	07/17/2018	ND	3.7	5.0	
				07/24/2018	ND	3.8	5.2	
				08/20/2018	ND	3.9	5.4	
				08/27/2018	ND	3.8	5.3	
				Period Mean	<3.9			
				Period Max	<3.9			
Nitrite-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	07/17/2018	ND	5.5	7.4	
				07/24/2018	ND	5.6	7.6	
				08/20/2018	ND	5.8	7.9	
				08/27/2018	12	6.1	8.4	
				Period Mean	7.2 DNQ			
				Period Max	12			
	EPA 300.0	mg/kg dry weight	Plant 2 Cake	07/17/2018	ND	5.0	6.9	
				07/24/2018	ND	5.2	7.1	
				08/20/2018	ND	5.4	7.3	
				08/20/2018	ND	5.4	7.3	

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Organic Lead	HML 939-M	mg/kg dry weight	Plant 1 Cake	08/27/2018	ND	5.3	7.2	
				Period Mean	<5.4			
				Period Max	<5.4			
				07/17/2018	ND	0.12	0.29	
				Period Mean	<0.12			
				Period Max	<0.12			
	HML 939-M	mg/kg dry weight	Plant 2 Cake	07/17/2018	ND	0.10	0.25	
				Period Mean	<0.10			
				Period Max	<0.10			
				07/17/2018	49000	--	--	
				07/24/2018	46000	--	--	
				08/20/2018	56000	--	--	
Organic Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	08/27/2018	49000	--	--	
				Period Mean	50000			
				Period Max	56000			
				07/17/2018	40000	--	--	
				07/24/2018	42000	--	--	
				08/20/2018	45000	--	--	
	CALC	mg/kg dry weight	Plant 2 Cake	08/27/2018	42000	--	--	
				Period Mean	42000			
				Period Max	45000			
				07/17/2018	7.6	0.10	0.1	
				07/24/2018	8.1	0.10	0.1	
				08/20/2018	8.0	0.10	0.1	
pH	EPA 9045C	pH units	Plant 1 Cake	08/27/2018	7.9	0.10	0.1	
				Period Mean	7.9			
				Period Max	8.1			
				07/17/2018	7.6	0.10	0.1	
				07/24/2018	8.1	0.10	0.1	
				08/20/2018	7.7	0.10	0.1	
	EPA 9045C	pH units	Plant 2 Cake	08/27/2018	7.9	0.10	0.1	
				Period Mean	7.8			
				Period Max	8.1			
				07/17/2018	2.3 DNQ	2.1	2.5	
				Period Mean	2.3 DNQ			
				Period Max	2.3 DNQ			
EPA 9014	mg/kg dry weight	Plant 2 Cake	07/17/2018	ND	2.0	2.3		
			Period Mean	<2.0				
			Period Max	<2.0				
			07/17/2018	55000	--	--		
			07/24/2018	52000	--	--		
			08/20/2018	62000	--	--		
Total Cyanide	CALC	mg/kg dry weight	Plant 1 Cake	08/27/2018	56000	--	--	
				Period Mean	56000			
				Period Max	62000			
				07/17/2018	45000	--	--	
				07/24/2018	47000	--	--	
				08/20/2018	50000	--	--	
	CALC	mg/kg dry weight	Plant 2 Cake	08/27/2018	48000	--	--	
				Period Mean	48000			
				Period Max	50000			
				07/17/2018	20	0.050	0.050	
				07/24/2018	20	0.050	0.050	
				08/20/2018	19	0.050	0.050	
Total Nitrogen	SM 2540G	%	Plant 1 Cake	08/27/2018	18	0.050	0.050	
				Period Mean	19			
				Period Max	20			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		SM 2540G	%	Plant 2 Cake	07/17/2018	22	0.050	0.050
					07/24/2018	21	0.050	0.050
					08/20/2018	21	0.050	0.050
					08/27/2018	21	0.050	0.050
					Period Mean	21		
					Period Max	22		
Trace Elements	Antimony	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	2.6 DNQ	1.8	25
					Period Mean	2.6 DNQ		
					Period Max	2.6 DNQ		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	ND	1.7	23
					Period Mean	<1.7		
					Period Max	<1.7		
	Arsenic	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	19	2.7	15
					07/24/2018	20	2.8	15
					08/20/2018	23	2.9	16
					08/27/2018	21	3.0	16
					Period Mean	21		
					Period Max	23		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	20	2.5	14
					07/24/2018	19	2.6	14
					08/20/2018	24	2.7	14
					08/27/2018	22	2.6	14
					Period Mean	21		
					Period Max	24		
Barium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	370	0.49	25	
				Period Mean	370			
				Period Max	370			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	890	0.46	23	
				Period Mean	890			
				Period Max	890			
Beryllium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	ND	0.059	2.5	
				Period Mean	<0.059			
				Period Max	<0.059			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	ND	0.056	2.3	
				Period Mean	<0.056			
				Period Max	<0.056			
Cadmium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	1.7 DNQ	0.12	2.5	
				07/24/2018	1.7 DNQ	0.12	2.5	
				08/20/2018	1.9 DNQ	0.13	2.6	
				08/27/2018	1.6 DNQ	0.13	2.7	
				Period Mean	1.7 DNQ			
				Period Max	1.9 DNQ			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	2.7	0.11	2.3	
				07/24/2018	2.9	0.11	2.3	
				08/20/2018	4.7	0.12	2.4	
				08/27/2018	4.1	0.12	2.3	
				Period Mean	3.6			
				Period Max	4.7			
Chromium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	31	1.1	9.8	
				07/24/2018	34	1.1	10	
				08/20/2018	43	1.1	10	
				08/27/2018	40	1.2	11	
				Period Mean	37			
				Period Max	43			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	39	0.99	9.2	
				07/24/2018	46	0.99	9.2	
				08/20/2018	49	1.0	9.7	

### Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Cobalt					08/27/2018	46	1.0	9.4
					Period Mean	45		
					Period Max	49		
	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	1.9 DNQ	0.27	9.8	
				Period Mean	1.9 DNQ			
				Period Max	1.9 DNQ			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	2.1 DNQ	0.25	9.2	
				Period Mean	2.1 DNQ			
				Period Max	2.1 DNQ			
	Copper	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	410	2.2	12
07/24/2018					440	2.2	13	
08/20/2018					560	2.3	13	
08/27/2018					520	2.4	14	
Period Mean					480			
Period Max					560			
EPA 6010B					mg/kg dry weight	Plant 2 Cake	07/17/2018	490
07/24/2018		510	2.0	12				
08/20/2018		560	2.1	12				
08/27/2018		530	2.1	12				
Period Mean		520						
Period Max		560						
Iron		EPA 6010B	mg/kg dry weight	Plant 1 Cake			07/17/2018	67000
					07/24/2018	77000	11	50
	08/20/2018				86000	12	52	
	08/27/2018				80000	12	55	
	Period Mean				78000			
	Period Max	86000						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	67000	10	46	
				07/24/2018	78000	10	46	
				08/20/2018	78000	11	48	
				08/27/2018	75000	10	47	
Period Mean				74000				
Period Max	78000							
Lead	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	12	0.67	4.9	
				07/24/2018	11	0.69	5.0	
				08/20/2018	12	0.72	5.2	
				08/27/2018	10	0.75	5.5	
				Period Mean	11			
	Period Max	12						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	13	0.63	4.6	
				07/24/2018	14	0.63	4.6	
				08/20/2018	12	0.66	4.8	
				08/27/2018	12	0.64	4.7	
Period Mean				13				
Period Max	14							
Magnesium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	5800	16	120	
				07/24/2018	6500	17	130	
				08/20/2018	8700	18	130	
				08/27/2018	7200	18	140	
				Period Mean	7000			
	Period Max	8700						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	6700	15	120	
				07/24/2018	7600	15	120	
				08/20/2018	8600	16	120	
				08/27/2018	7200	16	120	
Period Mean				7500				
Period Max	8600							

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Mercury	EPA 7471A	mg/kg dry weight	Plant 1 Cake	07/17/2018	0.64	0.058	0.097	
				07/24/2018	0.71	0.061	0.10	
				08/20/2018	0.84	0.063	0.11	
				08/27/2018	0.70	0.066	0.11	
				Period Mean	0.72			
				Period Max	0.84			
				07/17/2018	0.92	0.054	0.090	
				07/24/2018	0.60	0.056	0.094	
				08/20/2018	0.82	0.057	0.095	
				08/27/2018	1.1	0.056	0.093	
	Period Mean	0.86						
	Period Max	1.1						
	Molybdenum	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	16	0.28	9.8
					07/24/2018	16	0.28	10
08/20/2018					21	0.30	10	
08/27/2018					18	0.31	11	
Period Mean					18			
Period Max					21			
07/17/2018					17	0.26	9.2	
07/24/2018					19	0.26	9.2	
08/20/2018					20	0.27	9.7	
08/27/2018					19	0.27	9.4	
Period Mean		19						
Period Max		20						
Nickel		EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	31	0.88	9.8
					07/24/2018	33	0.90	10
	08/20/2018				47	0.94	10	
	08/27/2018				41	0.98	11	
	Period Mean				38			
	Period Max				47			
	07/17/2018				31	0.83	9.2	
	07/24/2018				35	0.83	9.2	
	08/20/2018				46	0.87	9.7	
	08/27/2018				42	0.84	9.4	
	Period Mean	38						
	Period Max	46						
	Selenium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	ND	2.8	25
					07/24/2018	ND	2.8	25
08/20/2018					ND	2.9	26	
08/27/2018					ND	3.1	27	
Period Mean					<3.1			
Period Max					<3.1			
07/17/2018					ND	2.6	23	
07/24/2018					ND	2.6	23	
08/20/2018					ND	2.7	24	
08/27/2018					ND	2.6	23	
Period Mean		<2.7						
Period Max		<2.7						
Silver		EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	3.9 DNQ	0.69	12
					07/24/2018	3.6 DNQ	0.71	13
	08/20/2018				5.5 DNQ	0.74	13	
	08/27/2018				4.7 DNQ	0.77	14	
	Period Mean				4.4 DNQ			
	Period Max				5.5 DNQ			
	07/17/2018				3.6 DNQ	0.65	12	
	07/24/2018				4.6 DNQ	0.65	12	
	08/20/2018				5.1 DNQ	0.68	12	

### Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
					08/27/2018	5.0 DNQ	0.66	12
					Period Mean	4.6 DNQ		
					Period Max	5.1 DNQ		
	Thallium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	ND	1.6	25
					Period Mean	<1.6		
					Period Max	<1.6		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	ND	1.5	23
					Period Mean	<1.5		
					Period Max	<1.5		
	Vanadium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	22	2.6	4.9
					Period Mean	22		
					Period Max	22		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	07/17/2018	55	2.4	4.6
					Period Mean	55		
					Period Max	55		
	Zinc	EPA 6010B	mg/kg dry weight	Plant 1 Cake	07/17/2018	580	8.5	25
					07/24/2018	570	8.7	25
					08/20/2018	730	9.1	26
					08/27/2018	670	9.5	27
					Period Mean	640		
Period Max		730						
EPA 6010B		mg/kg dry weight	Plant 2 Cake	07/17/2018	660	8.0	23	
				07/24/2018	730	8.0	23	
				08/20/2018	810	8.4	24	
				08/27/2018	770	8.1	23	
	Period Mean			740				
Period Max	810							
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
	1,1,1-Trichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	1,1,1,2-Tetrachloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	1,1,2-Trichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,1-Dichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
1,1-Dichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
1,1-Dichloropropene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,2,3-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
1,2,3-Trichloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	230	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	230	
				Period Mean	<23			
				Period Max	<23			
1,2,4-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
1,2,4-Trimethylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	27 DNQ	23	46	
				Period Mean	27 DNQ			
				Period Max	27 DNQ			
1,2-Dibromo-3-chloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	46	110	
				Period Mean	<46			
				Period Max	<46			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	46	110	
				Period Mean	<46			
				Period Max	<46			
1,2-Dibromoethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,2-Dichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
1,2-Dichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			

### Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,2-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,3,5-Trichlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	22	44
					Period Mean	<22		
					Period Max	<22		
1,3,5-Trimethylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,3-Dichlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,3-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
1,4-Dichlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
2,2-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
2-Chlorotoluene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
2-Hexanone		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	110	570
					Period Mean	<110		
					Period Max	<110		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	110	570
					Period Mean	<110		
					Period Max	<110		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
4-Chlorotoluene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
Acrolein	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	230	2300	
				Period Mean	<230			
				Period Max	<230			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	230	2300	
				Period Mean	<230			
				Period Max	<230			
Acrylonitrile	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	460	2300	
				Period Mean	<460			
				Period Max	<460			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	460	2300	
				Period Mean	<460			
				Period Max	<460			
Benzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Bromobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
Bromochloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
Bromodichloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Bromoform	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	46	110	
				Period Mean	<46			
				Period Max	<46			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	46	110	
				Period Mean	<46			
				Period Max	<46			
Bromomethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
Carbon tetrachloride	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
	Chlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	Chloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	46	110
					Period Mean	<46		
					Period Max	<46		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	46	110
					Period Mean	<46		
					Period Max	<46		
	Chloroform	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	Chloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
cis-1,2-Dichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
cis-1,3-Dichloropropene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Dibromochloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Dibromomethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Dichlorodifluoromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	46	110	
				Period Mean	<46			
				Period Max	<46			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	46	110	
				Period Mean	<46			
				Period Max	<46			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Ethylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
Hexachlorobutadiene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
Isobutyl alcohol	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	570	1100	
				Period Mean	<570			
				Period Max	<570			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	570	1100	
				Period Mean	<570			
				Period Max	<570			
Isopropylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46	
				Period Mean	<23			
				Period Max	<23			
m,p-Xylenes	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	46	91	
				Period Mean	<46			
				Period Max	<46			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	46	91	
				Period Mean	<46			
				Period Max	<46			
Methyl ethyl ketone	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	550	110	230	
				Period Mean	550			
				Period Max	550			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	110	230	
				Period Mean	<110			
				Period Max	<110			
Methylene Chloride	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	110	460	
				Period Mean	<110			
				Period Max	<110			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	110	460	
				Period Mean	<110			
				Period Max	<110			
MIBK	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	57	110	
				Period Mean	<57			
				Period Max	<57			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	57	110	
				Period Mean	<57			
				Period Max	<57			
Naphthalene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	46	110	
				Period Mean	<46			
				Period Max	<46			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	46	110	
				Period Mean	<46			
				Period Max	<46			
n-Butylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
n-Propylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
o-Xylene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
sec-Butylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
Styrene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
tert-Butylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
Tetrachloroethene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
Toluene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
trans-1,2-Dichloroethene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
trans-1,3-Dichloropropene		EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Trichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	46
					Period Mean	<23		
					Period Max	<23		
	Trichlorofluoromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
		EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110
					Period Mean	<23		
					Period Max	<23		
Vinyl chloride	EPA 8260B	µg/kg dry	Plant 1 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
	EPA 8260B	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23	110	
				Period Mean	<23			
				Period Max	<23			
Semi-Volatile Organic Compounds	1,2,4-Trichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	26000	310000
					Period Mean	<26000		
					Period Max	<26000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	25000	300000
					Period Mean	<25000		
					Period Max	<25000		
	1,2-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	21000	310000
					Period Mean	<21000		
					Period Max	<21000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	20000	300000
					Period Mean	<20000		
					Period Max	<20000		
	1,3-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	11000	310000
					Period Mean	<11000		
					Period Max	<11000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	11000	300000
					Period Mean	<11000		
					Period Max	<11000		
	1,4-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	13000	310000
					Period Mean	<13000		
					Period Max	<13000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	12000	300000
					Period Mean	<12000		
					Period Max	<12000		
2,4,5-Trichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9300	310000	
				Period Mean	<9300			
				Period Max	<9300			
	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	9000	300000	
				Period Mean	<9000			
				Period Max	<9000			
2,4,6-Trichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9300	310000	
				Period Mean	<9300			
				Period Max	<9300			
	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	9000	300000	
				Period Mean	<9000			
				Period Max	<9000			
2,4-Dichlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9300	310000	
				Period Mean	<9300			
				Period Max	<9300			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	9000	300000
					Period Mean	<9000		
					Period Max	<9000		
2,4-Dimethylphenol		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	62000	310000
					Period Mean	<62000		
					Period Max	<62000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	59000	300000
					Period Mean	<59000		
					Period Max	<59000		
2,4-Dinitrophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	310000	1500000
					Period Mean	<310000		
					Period Max	<310000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	300000	1400000
					Period Mean	<300000		
					Period Max	<300000		
2,4-Dinitrotoluene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	62000	310000
					Period Mean	<62000		
					Period Max	<62000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	59000	300000
					Period Mean	<59000		
					Period Max	<59000		
2,6-Dinitrotoluene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	26000	310000
					Period Mean	<26000		
					Period Max	<26000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	25000	300000
					Period Mean	<25000		
					Period Max	<25000		
2-Chloronaphthalene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9300	310000
					Period Mean	<9300		
					Period Max	<9300		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	9000	300000
					Period Mean	<9000		
					Period Max	<9000		
2-Chlorophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	20000	310000
					Period Mean	<20000		
					Period Max	<20000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	19000	300000
					Period Mean	<19000		
					Period Max	<19000		
2-Methylnaphthalene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	18000	310000
					Period Mean	<18000		
					Period Max	<18000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	17000	300000
					Period Mean	<17000		
					Period Max	<17000		
2-Methylphenol		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	12000	310000
					Period Mean	<12000		
					Period Max	<12000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	12000	300000
					Period Mean	<12000		
					Period Max	<12000		
2-Nitroaniline		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	47000	1500000
					Period Mean	<47000		
					Period Max	<47000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	45000	1400000
					Period Mean	<45000		
					Period Max	<45000		



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	2-Nitrophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9300	310000
					Period Mean	<9300		
					Period Max	<9300		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	9000	300000
					Period Mean	<9000		
					Period Max	<9000		
3,3-Dichlorobenzidine	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	84000	620000	
				Period Mean	<84000			
				Period Max	<84000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	81000	590000
					Period Mean	<81000		
					Period Max	<81000		
3-METHYLPHENOL	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	31000	310000	
				Period Mean	<31000			
				Period Max	<31000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	30000	300000
					Period Mean	<30000		
					Period Max	<30000		
3-Nitroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	68000	1500000	
				Period Mean	<68000			
				Period Max	<68000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	65000	1400000
					Period Mean	<65000		
					Period Max	<65000		
4,6-Dinitro-2-methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	310000	1500000	
				Period Mean	<310000			
				Period Max	<310000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	300000	1400000
					Period Mean	<300000		
					Period Max	<300000		
4-Bromophenyl phenyl ether	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	18000	310000	
				Period Mean	<18000			
				Period Max	<18000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	17000	300000
					Period Mean	<17000		
					Period Max	<17000		
4-Chloro-3-methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	62000	310000	
				Period Mean	<62000			
				Period Max	<62000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	59000	300000
					Period Mean	<59000		
					Period Max	<59000		
4-Chloroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	76000	310000	
				Period Mean	<76000			
				Period Max	<76000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	73000	300000
					Period Mean	<73000		
					Period Max	<73000		
4-Chlorophenyl phenyl ether	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	20000	310000	
				Period Mean	<20000			
				Period Max	<20000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	19000	300000
					Period Mean	<19000		
					Period Max	<19000		
4-Methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	31000	310000	
				Period Mean	<31000			
				Period Max	<31000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	30000	300000
					Period Mean	<30000		
					Period Max	<30000		
4-Nitroaniline		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	68000	1500000
					Period Mean	<68000		
					Period Max	<68000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	65000	1400000
					Period Mean	<65000		
					Period Max	<65000		
4-Nitrophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	90000	1500000
					Period Mean	<90000		
					Period Max	<90000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	87000	1400000
					Period Mean	<87000		
					Period Max	<87000		
Acenaphthene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9600	310000
					Period Mean	<9600		
					Period Max	<9600		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	9200	300000
					Period Mean	<9200		
					Period Max	<9200		
Acenaphthylene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	16000	310000
					Period Mean	<16000		
					Period Max	<16000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	15000	300000
					Period Mean	<15000		
					Period Max	<15000		
Aniline		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	120000	310000
					Period Mean	<120000		
					Period Max	<120000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	120000	300000
					Period Mean	<120000		
					Period Max	<120000		
Anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	16000	310000
					Period Mean	<16000		
					Period Max	<16000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	15000	300000
					Period Mean	<15000		
					Period Max	<15000		
Azobenzene/1,2-Diphenylhydrazine		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	21000	310000
					Period Mean	<21000		
					Period Max	<21000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	20000	300000
					Period Mean	<20000		
					Period Max	<20000		
Benz(a)anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	19000	310000
					Period Mean	<19000		
					Period Max	<19000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	18000	300000
					Period Mean	<18000		
					Period Max	<18000		
Benzidine		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	920000	3100000
					Period Mean	<920000		
					Period Max	<920000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	890000	3000000
					Period Mean	<890000		
					Period Max	<890000		

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Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Benzo(a)pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	19000	310000
					Period Mean	<19000		
					Period Max	<19000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	18000	300000
					Period Mean	<18000		
					Period Max	<18000		
Benzo(b)fluoranthene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	24000	310000	
				Period Mean	<24000			
				Period Max	<24000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23000	300000
					Period Mean	<23000		
					Period Max	<23000		
Benzo(g,h,i)perylene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	15000	310000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	14000	300000
					Period Mean	<14000		
					Period Max	<14000		
Benzo(k)fluoranthene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	37000	310000	
				Period Mean	<37000			
				Period Max	<37000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	36000	300000
					Period Mean	<36000		
					Period Max	<36000		
Benzoic acid	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	310000	1500000	
				Period Mean	<310000			
				Period Max	<310000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	300000	1400000
					Period Mean	<300000		
					Period Max	<300000		
Benzyl alcohol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9300	310000	
				Period Mean	<9300			
				Period Max	<9300			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	9000	300000
					Period Mean	<9000		
					Period Max	<9000		
Bis(2-chloroethoxy)methane	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	21000	310000	
				Period Mean	<21000			
				Period Max	<21000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	21000	300000
					Period Mean	<21000		
					Period Max	<21000		
Bis(2-chloroethyl)ether	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	15000	310000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	15000	300000
					Period Mean	<15000		
					Period Max	<15000		
Bis(2-chloroisopropyl) ether	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	21000	310000	
				Period Mean	<21000			
				Period Max	<21000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	21000	300000
					Period Mean	<21000		
					Period Max	<21000		
Bis(2-ethylhexyl)phthalate	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	43000	310000	
				Period Mean	<43000			
				Period Max	<43000			

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Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	41000	300000
					Period Mean	<41000		
					Period Max	<41000		
Butyl benzyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	40000	310000
					Period Mean	<40000		
					Period Max	<40000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	39000	300000
					Period Mean	<39000		
					Period Max	<39000		
Chrysene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	25000	310000
					Period Mean	<25000		
					Period Max	<25000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	24000	300000
					Period Mean	<24000		
					Period Max	<24000		
Cresol		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	12000	310000
					Period Mean	<12000		
					Period Max	<12000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	12000	300000
					Period Mean	<12000		
					Period Max	<12000		
Dibenz(a,h)anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	18000	310000
					Period Mean	<18000		
					Period Max	<18000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	17000	300000
					Period Mean	<17000		
					Period Max	<17000		
Dibenzofuran		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	19000	310000
					Period Mean	<19000		
					Period Max	<19000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	18000	300000
					Period Mean	<18000		
					Period Max	<18000		
Diethyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	24000	620000
					Period Mean	<24000		
					Period Max	<24000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	23000	590000
					Period Mean	<23000		
					Period Max	<23000		
Dimethyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	21000	310000
					Period Mean	<21000		
					Period Max	<21000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	21000	300000
					Period Mean	<21000		
					Period Max	<21000		
Di-n-butyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	27000	310000
					Period Mean	<27000		
					Period Max	<27000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	26000	300000
					Period Mean	<26000		
					Period Max	<26000		
Di-n-octyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	13000	310000
					Period Mean	<13000		
					Period Max	<13000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	13000	300000
					Period Mean	<13000		
					Period Max	<13000		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Fluoranthene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	34000	310000
					Period Mean	<34000		
					Period Max	<34000		
	Fluoranthene	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	32000	300000
					Period Mean	<32000		
					Period Max	<32000		
Fluorene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	17000	310000	
				Period Mean	<17000			
				Period Max	<17000			
	Fluorene	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	16000	300000
					Period Mean	<16000		
					Period Max	<16000		
Hexachlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	27000	310000	
				Period Mean	<27000			
				Period Max	<27000			
	Hexachlorobenzene	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	26000	300000
					Period Mean	<26000		
					Period Max	<26000		
Hexachlorobutadiene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9300	310000	
				Period Mean	<9300			
				Period Max	<9300			
	Hexachlorobutadiene	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	9000	300000
					Period Mean	<9000		
					Period Max	<9000		
Hexachlorocyclopentadiene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	47000	1500000	
				Period Mean	<47000			
				Period Max	<47000			
	Hexachlorocyclopentadiene	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	45000	1400000
					Period Mean	<45000		
					Period Max	<45000		
Hexachloroethane	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	20000	310000	
				Period Mean	<20000			
				Period Max	<20000			
	Hexachloroethane	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	19000	300000
					Period Mean	<19000		
					Period Max	<19000		
Indeno(1,2,3-cd)pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	21000	310000	
				Period Mean	<21000			
				Period Max	<21000			
	Indeno(1,2,3-cd)pyrene	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	20000	300000
					Period Mean	<20000		
					Period Max	<20000		
Isophorone	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	16000	310000	
				Period Mean	<16000			
				Period Max	<16000			
	Isophorone	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	15000	300000
					Period Mean	<15000		
					Period Max	<15000		
Naphthalene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	29000	310000	
				Period Mean	<29000			
				Period Max	<29000			
	Naphthalene	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	28000	300000
					Period Mean	<28000		
					Period Max	<28000		
Nitrobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	21000	310000	
				Period Mean	<21000			
				Period Max	<21000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	20000	300000
					Period Mean	<20000		
					Period Max	<20000		
	N-Nitrosodimethyl amine	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	34000	310000
					Period Mean	<34000		
					Period Max	<34000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	33000	300000
					Period Mean	<33000		
					Period Max	<33000		
	N-Nitroso-di-n-propylamine	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	29000	310000
					Period Mean	<29000		
					Period Max	<29000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	28000	300000
					Period Mean	<28000		
					Period Max	<28000		
	N-Nitrosodiphenyl amine	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	20000	310000
					Period Mean	<20000		
					Period Max	<20000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	19000	300000
					Period Mean	<19000		
					Period Max	<19000		
	Pentachlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	310000	1500000
					Period Mean	<310000		
					Period Max	<310000		
	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	300000	1400000	
				Period Mean	<300000			
				Period Max	<300000			
Phenanthrene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	16000	310000	
				Period Mean	<16000			
				Period Max	<16000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	15000	300000	
				Period Mean	<15000			
				Period Max	<15000			
Phenol	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	17000	310000	
				Period Mean	<17000			
				Period Max	<17000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	16000	300000	
				Period Mean	<16000			
				Period Max	<16000			
Pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	11000	310000	
				Period Mean	<11000			
				Period Max	<11000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	11000	300000	
				Period Mean	<11000			
				Period Max	<11000			
Pyridine	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	ND	120000	620000	
				Period Mean	<120000			
				Period Max	<120000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	ND	120000	590000	
				Period Mean	<120000			
				Period Max	<120000			
Organochlorine Pesticides	Aldrin	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	60	400
					Period Mean	<60		
					Period Max	<60		
					07/17/2018	ND	55	370
					Period Mean	<55		
Period Max	<55							

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
alpha-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	51	400	
				Period Mean	<51			
				Period Max	<51			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	47	370	
				Period Mean	<47			
				Period Max	<47			
beta-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	160	400	
				Period Mean	<160			
				Period Max	<160			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	140	370	
				Period Mean	<140			
				Period Max	<140			
Chlordane	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	1900	6000	
				Period Mean	<1900			
				Period Max	<1900			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	1700	5400	
				Period Mean	<1700			
				Period Max	<1700			
delta-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	96	400	
				Period Mean	<96			
				Period Max	<96			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	87	370	
				Period Mean	<87			
				Period Max	<87			
Dieldrin	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	50	400	
				Period Mean	<50			
				Period Max	<50			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	46	370	
				Period Mean	<46			
				Period Max	<46			
Endosulfan 1	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	42	400	
				Period Mean	<42			
				Period Max	<42			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	38	370	
				Period Mean	<38			
				Period Max	<38			
Endosulfan 2	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	68	400	
				Period Mean	<68			
				Period Max	<68			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	62	370	
				Period Mean	<62			
				Period Max	<62			
Endosulfan Sulfate	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	66	400	
				Period Mean	<66			
				Period Max	<66			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	60	370	
				Period Mean	<60			
				Period Max	<60			
Endrin	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	73	400	
				Period Mean	<73			
				Period Max	<73			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	67	370	
				Period Mean	<67			
				Period Max	<67			
Endrin Aldehyde	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	41	400	
				Period Mean	<41			
				Period Max	<41			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	37	370
					Period Mean	<37		
					Period Max	<37		
Endrin Ketone	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	120	400	
				Period Mean	<120			
				Period Max	<120			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	110	370	
				Period Mean	<110			
				Period Max	<110			
gamma-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	110	400	
				Period Mean	<110			
				Period Max	<110			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	100	370	
				Period Mean	<100			
				Period Max	<100			
Heptachlor	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	51	400	
				Period Mean	<51			
				Period Max	<51			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	47	370	
				Period Mean	<47			
				Period Max	<47			
Heptachlor Epoxide	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	100	400	
				Period Mean	<100			
				Period Max	<100			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	93	370	
				Period Mean	<93			
				Period Max	<93			
Kepone	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	6000	18000	
				Period Mean	<6000			
				Period Max	<6000			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	5400	16000	
				Period Mean	<5400			
				Period Max	<5400			
Methoxychlor	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	110	790	
				Period Mean	<110			
				Period Max	<110			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	98	720	
				Period Mean	<98			
				Period Max	<98			
Mirex	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	64	400	
				Period Mean	<64			
				Period Max	<64			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	58	370	
				Period Mean	<58			
				Period Max	<58			
o,p'-DDD	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	43	400	
				Period Mean	<43			
				Period Max	<43			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	39	370	
				Period Mean	<39			
				Period Max	<39			
o,p'-DDE	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	77	400	
				Period Mean	<77			
				Period Max	<77			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	71	370	
				Period Mean	<71			
				Period Max	<71			



### Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	o,p'-DDT	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	63	400
					Period Mean	<63		
					Period Max	<63		
		EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	58	370
					Period Mean	<58		
					Period Max	<58		
	p,p'-DDD	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	130	400
					Period Mean	<130		
					Period Max	<130		
		EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	120	370
					Period Mean	<120		
					Period Max	<120		
	p,p'-DDE	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	57	400
					Period Mean	<57		
					Period Max	<57		
		EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	52	370
					Period Mean	<52		
					Period Max	<52		
p,p'-DDT	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	140	400	
				Period Mean	<140			
				Period Max	<140			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	130	370	
				Period Mean	<130			
				Period Max	<130			
Toxaphene	EPA 8081A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	3800	16000	
				Period Mean	<3800			
				Period Max	<3800			
	EPA 8081A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	3400	15000	
				Period Mean	<3400			
				Period Max	<3400			
PCBs	PCB 1016	EPA 8082	µg/kg dry	Plant 1 Cake	07/17/2018	ND	83	240
					Period Mean	<83		
					Period Max	<83		
		EPA 8082	µg/kg dry	Plant 2 Cake	07/17/2018	ND	78	230
					Period Mean	<78		
					Period Max	<78		
	PCB 1221	EPA 8082	µg/kg dry	Plant 1 Cake	07/17/2018	ND	83	240
					Period Mean	<83		
					Period Max	<83		
		EPA 8082	µg/kg dry	Plant 2 Cake	07/17/2018	ND	78	230
					Period Mean	<78		
					Period Max	<78		
	PCB 1232	EPA 8082	µg/kg dry	Plant 1 Cake	07/17/2018	ND	83	240
					Period Mean	<83		
					Period Max	<83		
		EPA 8082	µg/kg dry	Plant 2 Cake	07/17/2018	ND	78	230
					Period Mean	<78		
					Period Max	<78		
	PCB 1242	EPA 8082	µg/kg dry	Plant 1 Cake	07/17/2018	ND	83	240
					Period Mean	<83		
					Period Max	<83		
		EPA 8082	µg/kg dry	Plant 2 Cake	07/17/2018	ND	78	230
					Period Mean	<78		
					Period Max	<78		
PCB 1248	EPA 8082	µg/kg dry	Plant 1 Cake	07/17/2018	ND	83	240	
				Period Mean	<83			
				Period Max	<83			

### Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8082	µg/kg dry	Plant 2 Cake	07/17/2018	ND	78	230
					Period Mean	<78		
					Period Max	<78		
	PCB 1254	EPA 8082	µg/kg dry	Plant 1 Cake	07/17/2018	ND	83	240
					Period Mean	<83		
					Period Max	<83		
		EPA 8082	µg/kg dry	Plant 2 Cake	07/17/2018	ND	78	230
					Period Mean	<78		
					Period Max	<78		
	PCB 1260	EPA 8082	µg/kg dry	Plant 1 Cake	07/17/2018	ND	83	240
					Period Mean	<83		
					Period Max	<83		
		EPA 8082	µg/kg dry	Plant 2 Cake	07/17/2018	ND	78	230
					Period Mean	<78		
					Period Max	<78		
	PCB_HR_DM	EPA 8082	µg/kg dry	Plant 1 Cake	07/17/2018	ND	83	240
					Period Mean	<83		
					Period Max	<83		
	EPA 8082	µg/kg dry	Plant 2 Cake	07/17/2018	ND	78	230	
				Period Mean	<78			
				Period Max	<78			
Herbicides	2,4,5-T	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	110	410
					Period Mean	<110		
					Period Max	<110		
		EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	100	380
					Period Mean	<100		
					Period Max	<100		
	2,4,5-TP (Silvex)	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	79	410
					Period Mean	<79		
					Period Max	<79		
		EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	73	380
					Period Mean	<73		
					Period Max	<73		
	2,4-D	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	250	410
					Period Mean	<250		
					Period Max	<250		
		EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	230	380
					Period Mean	<230		
					Period Max	<230		
2,4-DB	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	150	410	
				Period Mean	<150			
				Period Max	<150			
	EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	140	380	
				Period Mean	<140			
				Period Max	<140			
4-Nitrophenol	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	150	1600	
				Period Mean	<150			
				Period Max	<150			
	EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	140	1500	
				Period Mean	<140			
				Period Max	<140			
Dalapon	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	140	4900	
				Period Mean	<140			
				Period Max	<140			
	EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	130	4600	
				Period Mean	<130			
				Period Max	<130			

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Dicamba	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	94	410
					Period Mean	<94		
					Period Max	<94		
		EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	87	380
					Period Mean	<87		
					Period Max	<87		
	Dichlorprop (2,4-DP)	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	54	410
					Period Mean	<54		
					Period Max	<54		
		EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	50	380
					Period Mean	<50		
					Period Max	<50		
	MCPA	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	9400	99000
					Period Mean	<9400		
					Period Max	<9400		
		EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	8700	91000
					Period Mean	<8700		
					Period Max	<8700		
MCPP	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	8400	99000	
				Period Mean	<8400			
				Period Max	<8400			
	EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	7800	91000	
				Period Mean	<7800			
				Period Max	<7800			
Pentachlorophenol	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	21	410	
				Period Mean	<21			
				Period Max	<21			
	EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	ND	19	380	
				Period Mean	<19			
				Period Max	<19			
Picloram	EPA 8151A	µg/kg dry	Plant 1 Cake	07/17/2018	ND	89	410	
				Period Mean	<89			
				Period Max	<89			
	EPA 8151A	µg/kg dry	Plant 2 Cake	07/17/2018	5800	82	380	
				Period Mean	5800			
				Period Max	5800			
Dioxins/Furans	2,3,7,8-TCDD	EPA 1613B	pg/g dry	Plant 1 Cake	07/17/2018	ND	0.49	4.7
					Period Mean	<0.49		
					Period Max	<0.49		
	EPA 1613B	pg/g dry	Plant 2 Cake	07/17/2018	ND	0.67	4.7	
				Period Mean	<0.67			
				Period Max	<0.67			
Tentatively Identified Compounds	1000147-77-7	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	1400000	900	--
					Period Mean	1400000		
					Period Max	1400000		
	17-(1,5-DIMETHYLHEXYL)-10,13-DIMETHYLHEX-2,6,10,14,18,22-TETRACOSAHEXAENE, 2,6,10,14,18,22-HEXACOSANO L	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	660000	930	--
					Period Mean	660000		
					Period Max	660000		
		EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	130000	930	--
					Period Mean	130000		
					Period Max	130000		
	Squalene	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	340000	900	--
					Period Mean	340000		
					Period Max	340000		

### Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - July - August

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	UNKNOWN	EPA 8270C	µg/kg dry	Plant 1 Cake	07/17/2018	180000	930	--
Period Mean					180000			
Period Max					180000			
	UNKNOWN	EPA 8270C	µg/kg dry	Plant 2 Cake	07/17/2018	160000	900	--
Period Mean					160000			
Period Max					160000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL		
General Chemistry	Ammonia-N	SM 4500 NH3 G	mg/kg dry weight	Plant 1 Cake	09/18/2018	5200	250	1300		
					09/25/2018	5500	280	1400		
					10/16/2018	5900	270	1400		
					10/23/2018	6600	270	1300		
					Period Mean	5800				
					Period Max	6600				
		SM 4500 NH3 G	mg/kg dry weight	Plant 2 Cake	09/18/2018	4600	230	1200		
					09/25/2018	4800	230	1200		
					10/16/2018	5500	240	1200		
					10/23/2018	5900	250	1200		
	Period Mean	5200								
	Period Max	5900								
	Hexavalent Chromium	EPA 7196A	mg/kg dry weight	Plant 1 Cake	10/16/2018	ND	27	55		
					Period Mean	<27				
Period Max					<27					
EPA 7196A		mg/kg dry weight	Plant 2 Cake	10/16/2018	ND	25	49			
				Period Mean	<25					
				Period Max	<25					
Kjeldahl Nitrogen	EPA 351.2	mg/kg dry weight	Plant 1 Cake	09/18/2018	48000	6400	8600			
				09/25/2018	55000	6300	8500			
				10/16/2018	54000	6400	8500			
				10/23/2018	60000	7000	9400			
				Period Mean	54000					
				Period Max	60000					
				EPA 351.2	mg/kg dry weight	Plant 2 Cake	09/18/2018	44000	5400	7100
							09/25/2018	51000	5400	7100
	10/16/2018	49000	6800				9000			
	10/23/2018	53000	5900				7900			
	Period Mean	49000								
	Period Max	53000								
	Nitrate-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	09/18/2018	ND	4.1	5.6		
					09/25/2018	ND	4.5	6.1		
10/16/2018					ND	4.4	6.0			
10/23/2018					ND	4.3	6.0			
Period Mean					<4.5					
Period Max					<4.5					
EPA 300.0					mg/kg dry weight	Plant 2 Cake	09/18/2018	ND	3.8	5.2
							09/25/2018	ND	3.8	5.2
		10/16/2018	ND	3.9			5.4			
		10/23/2018	ND	4.0			5.5			
		Period Mean	<4.0							
		Period Max	<4.0							
Nitrite-N		EPA 300.0	mg/kg dry weight	Plant 1 Cake	09/18/2018	ND	5.6	7.6		
					09/25/2018	ND	6.1	8.4		
	10/16/2018				ND	6.0	8.2			
	10/23/2018				ND	6.0	8.2			
	Period Mean				<6.1					
	Period Max				<6.1					
	EPA 300.0				mg/kg dry weight	Plant 2 Cake	09/18/2018	ND	5.2	7.0
							09/25/2018	ND	5.2	7.1
		10/16/2018	ND	5.4			7.4			
		10/23/2018	ND	5.5			7.5			
		Period Mean	<5.5							
		Period Max	<5.5							
	Organic Lead	HML 939-M	mg/kg dry weight	Plant 1 Cake	10/16/2018	ND	0.12	0.30		
					Period Mean	<0.12				
Period Max					<0.12					

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL			
		HML 939-M	mg/kg dry weight	Plant 2 Cake	10/16/2018	ND	0.11	0.27			
					Period Mean	<0.11					
					Period Max	<0.11					
	Organic Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	09/18/2018	43000	--	--			
					09/25/2018	50000	--	--			
					10/16/2018	48000	--	--			
					10/23/2018	53000	--	--			
					Period Mean	48000					
					Period Max	53000					
					CALC	mg/kg dry weight	Plant 2 Cake	09/18/2018	39000	--	--
								09/25/2018	46000	--	--
	10/16/2018	44000	--	--							
	10/23/2018	47000	--	--							
	Period Mean	44000									
	Period Max	47000									
pH	EPA 9045C	pH units	Plant 1 Cake	09/18/2018				7.6	0.10	0.1	
				09/25/2018	7.9	0.10	0.1				
				10/16/2018	8.1	0.10	0.1				
				10/23/2018	7.8	0.10	0.1				
				Period Mean	7.8						
	Period Max	8.1									
	EPA 9045C	pH units	Plant 2 Cake	09/18/2018	7.9	0.10	0.1				
				09/25/2018	7.9	0.10	0.1				
				10/16/2018	8.2	0.10	0.1				
				10/23/2018	7.8	0.10	0.1				
Period Mean				8.0							
Period Max	8.2										
Total Cyanide	EPA 9014	mg/kg dry weight	Plant 1 Cake	10/16/2018	ND	2.3	2.7				
				Period Mean	<2.3						
				Period Max	<2.3						
	EPA 9014	mg/kg dry weight	Plant 2 Cake	10/16/2018	ND	2.1	2.4				
				Period Mean	<2.1						
				Period Max	<2.1						
Total Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	09/18/2018	48000	--	--				
				09/25/2018	55000	--	--				
				10/16/2018	54000	--	--				
				10/23/2018	60000	--	--				
				Period Mean	54000						
				Period Max	60000						
				CALC	mg/kg dry weight	Plant 2 Cake	09/18/2018	44000	--	--	
							09/25/2018	51000	--	--	
	10/16/2018	49000	--				--				
	10/23/2018	53000	--				--				
	Period Mean	49000									
	Period Max	53000									
	Total Solids	SM 2540G	%	Plant 1 Cake	09/18/2018	20	0.050	0.050			
					09/25/2018	18	0.050	0.050			
10/16/2018					19	0.050	0.050				
10/23/2018					18	0.050	0.050				
Period Mean					19						
Period Max					20						
SM 2540G					%	Plant 2 Cake	09/18/2018	21	0.050	0.050	
							09/25/2018	21	0.050	0.050	
		10/16/2018	21	0.050			0.050				
		10/23/2018	20	0.050			0.050				
		Period Mean	21								
Period Max		21									

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Trace Elements	Antimony	EPA 6010B	mg/kg dry weight	Plant 1 Cake	10/16/2018	ND	2.0	27
					Period Mean	<2.0		
					Period Max	<2.0		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	10/16/2018	ND	1.8	24
					Period Mean	<1.8		
					Period Max	<1.8		
	Arsenic	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	20	2.8	15
					09/25/2018	20	3.1	17
					10/16/2018	18	3.0	16
					10/23/2018	29	3.0	16
					Period Mean	22		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	18	2.5	14
					09/25/2018	21	2.6	14
					10/16/2018	24	2.7	15
					10/23/2018	23	2.7	15
					Period Mean	22		
	Beryllium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	10/16/2018	ND	0.066	2.7
					Period Mean	<0.066		
					Period Max	<0.066		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	10/16/2018	ND	0.059	2.4
Period Mean					<0.059			
Period Max					<0.059			
Cadmium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	1.5 DNQ	0.12	2.5	
				09/25/2018	1.6 DNQ	0.14	2.8	
				10/16/2018	1.6 DNQ	0.13	2.7	
				10/23/2018	4.4	0.13	2.7	
				Period Mean	2.3 DNQ			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	3.2	0.11	2.3	
				09/25/2018	3.0	0.11	2.3	
				10/16/2018	3.7	0.12	2.4	
				10/23/2018	1.7 DNQ	0.12	2.4	
				Period Mean	2.9 DNQ			
Chromium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	38	1.1	10	
				09/25/2018	40	1.2	11	
				10/16/2018	40	1.2	11	
				10/23/2018	76	1.2	11	
				Period Mean	48			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	45	0.98	9.1	
				09/25/2018	48	1.0	9.3	
				10/16/2018	57	1.0	9.7	
				10/23/2018	47	1.1	9.8	
				Period Mean	49			
Copper	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	540	2.2	12	
				09/25/2018	490	2.4	14	
				10/16/2018	410	2.4	14	
				10/23/2018	610	2.4	13	
				Period Mean	510			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	580	2.0	11	
				09/25/2018	550	2.0	12	
				10/16/2018	550	2.1	12	
				Period Mean	510			
				Period Max	610			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Iron	EPA 6010B	mg/kg dry weight	Plant 1 Cake	10/23/2018	480	2.2	12	
				Period Mean	540			
				Period Max	580			
				09/18/2018	76000	11	50	
				09/25/2018	75000	12	55	
				10/16/2018	62000	12	55	
	10/23/2018	85000	12	53				
	Period Mean	74000						
	Period Max	85000						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	74000	10	46	
				09/25/2018	75000	10	46	
				10/16/2018	79000	11	48	
				10/23/2018	71000	11	49	
				Period Mean	75000			
				Period Max	79000			
	Lead	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	12	0.68	5.0
					09/25/2018	11	0.76	5.5
					10/16/2018	11	0.75	5.5
10/23/2018					19	0.73	5.3	
Period Mean					13			
Period Max					19			
EPA 6010B		mg/kg dry weight	Plant 2 Cake	09/18/2018	15	0.63	4.6	
				09/25/2018	13	0.64	4.6	
				10/16/2018	16	0.66	4.8	
				10/23/2018	14	0.67	4.9	
				Period Mean	14			
				Period Max	16			
Magnesium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	7300	17	120	
				09/25/2018	7200	19	140	
				10/16/2018	6100	18	140	
				10/23/2018	9400	18	130	
				Period Mean	7500			
				Period Max	9400			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	7800	15	110	
				09/25/2018	8000	16	120	
				10/16/2018	8700	16	120	
				10/23/2018	7200	16	120	
				Period Mean	7900			
				Period Max	8700			
Mercury	EPA 7471A	mg/kg dry weight	Plant 1 Cake	09/18/2018	0.96	0.062	0.10	
				09/25/2018	1.2	0.066	0.11	
				10/16/2018	1.0	0.064	0.11	
				10/23/2018	0.72	0.064	0.11	
				Period Mean	0.97			
				Period Max	1.2			
	EPA 7471A	mg/kg dry weight	Plant 2 Cake	09/18/2018	1.2	0.057	0.095	
				09/25/2018	0.88	0.057	0.095	
				10/16/2018	0.82	0.058	0.096	
				10/23/2018	0.79	0.060	0.10	
				Period Mean	0.92			
				Period Max	1.2			
Molybdenum	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	17	0.28	10	
				09/25/2018	17	0.31	11	
				10/16/2018	14	0.31	11	
				10/23/2018	22	0.30	11	
				Period Mean	18			
				Period Max	22			



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	17	0.26	9.1
					09/25/2018	18	0.26	9.3
					10/16/2018	19	0.27	9.7
					10/23/2018	18	0.28	9.8
					Period Mean	18		
					Period Max	19		
	Nickel	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	35	0.90	10
					09/25/2018	34	0.99	11
					10/16/2018	29	0.98	11
					10/23/2018	47	0.96	11
					Period Mean	36		
					Period Max	47		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	41	0.82	9.1
					09/25/2018	41	0.83	9.3
					10/16/2018	41	0.87	9.7
					10/23/2018	36	0.88	9.8
					Period Mean	40		
					Period Max	41		
Selenium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	ND	2.8	25	
				09/25/2018	ND	3.1	28	
				10/16/2018	ND	3.1	27	
				10/23/2018	ND	3.0	27	
				Period Mean	<3.1			
	Period Max	<3.1						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	ND	2.6	23	
				09/25/2018	ND	2.6	23	
				10/16/2018	ND	2.7	24	
				10/23/2018	ND	2.7	24	
Period Mean				<2.7				
Period Max	<2.7							
Silver	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	3.7 DNQ	0.71	12	
				09/25/2018	3.6 DNQ	0.78	14	
				10/16/2018	3.4 DNQ	0.77	14	
				10/23/2018	5.9 DNQ	0.76	13	
				Period Mean	4.2 DNQ			
	Period Max	5.9 DNQ						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	4.1 DNQ	0.65	11	
				09/25/2018	5.0 DNQ	0.66	12	
				10/16/2018	4.8 DNQ	0.68	12	
				10/23/2018	3.6 DNQ	0.70	12	
Period Mean				4.4 DNQ				
Period Max	5.0 DNQ							
Thallium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	10/16/2018	ND	1.8	27	
				Period Mean	<1.8			
				Period Max	<1.8			
EPA 6010B	mg/kg dry weight	Plant 2 Cake	10/16/2018	ND	1.6	24		
			Period Mean	<1.6				
			Period Max	<1.6				
Zinc	EPA 6010B	mg/kg dry weight	Plant 1 Cake	09/18/2018	660	8.6	25	
				09/25/2018	660	9.6	28	
				10/16/2018	570	9.4	27	
				10/23/2018	950	9.2	27	
	Period Mean	710						
	Period Max	950						
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	09/18/2018	750	7.9	23	
				09/25/2018	780	8.0	23	
10/16/2018				810	8.4	24		
Period Mean				770				
Period Max	810							

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
					10/23/2018	710	8.5	24
					Period Mean	760		
					Period Max	810		
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
	1,1,1-Trichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	1,1,2,2-Tetrachloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	1,1,2-Trichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
1,1-Dichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980	
				Period Mean	<490			
				Period Max	<490			
1,1-Dichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400	
				Period Mean	<980			
				Period Max	<980			
1,1-Dichloropropene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980	
				Period Mean	<490			
				Period Max	<490			
1,2,3-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400	
				Period Mean	<980			
				Period Max	<980			
1,2,3-Trichloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	5500	
				Period Mean	<1100			
				Period Max	<1100			
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	4900	
				Period Mean	<980			
				Period Max	<980			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	1,2,4-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
	1,2,4-Trimethylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	1,2-Dibromo-3-chloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
	1,2-Dibromoethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	1,2-Dichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	1,2-Dichloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	1,2-Dichloropropane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	1,3,5-Trichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2200
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2000
					Period Mean	<980		
					Period Max	<980		
	1,3,5-Trimethylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	1,3-Dichlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
1,3-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
1,4-Dichlorobenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
2,2-Dichloropropane		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2200
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2000
					Period Mean	<980		
					Period Max	<980		
2-Chlorotoluene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
2-Hexanone		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	5500	14000
					Period Mean	<5500		
					Period Max	<5500		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	4900	12000
					Period Mean	<4900		
					Period Max	<4900		
4-Chlorotoluene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	2700
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	2400
					Period Mean	<490		
					Period Max	<490		
Acrolein		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	22000	55000
					Period Mean	<22000		
					Period Max	<22000		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	20000	49000
					Period Mean	<20000		
					Period Max	<20000		
Acrylonitrile		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	11000	55000
					Period Mean	<11000		
					Period Max	<11000		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	9800	49000
					Period Mean	<9800		
					Period Max	<9800		
Benzene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Bromobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
Bromochloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
Bromodichloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
Bromoform	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
Bromomethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
Carbon tetrachloride	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
Chlorobenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
Chloroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
Chloroform	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
Chloromethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
cis-1,2-Dichloroethene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
cis-1,3-Dichloropropene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
Dibromochloromethane		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
Dibromomethane		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
Dichlorodifluoromethane		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
Ethylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
Hexachlorobutadiene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
Isobutyl alcohol		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	27000	55000
					Period Mean	<27000		
					Period Max	<27000		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	24000	49000
					Period Mean	<24000		
					Period Max	<24000		
Isopropylbenzene		EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	m,p-Xylenes	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2200
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2000
					Period Mean	<980		
					Period Max	<980		
Methyl ethyl ketone	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	5500	11000	
				Period Mean	<5500			
				Period Max	<5500			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	4900	9800
					Period Mean	<4900		
					Period Max	<4900		
Methylene Chloride	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	5500	11000	
				Period Mean	<5500			
				Period Max	<5500			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	4900	9800
					Period Mean	<4900		
					Period Max	<4900		
MIBK	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	2200	5500	
				Period Mean	<2200			
				Period Max	<2200			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	2000	4900
					Period Mean	<2000		
					Period Max	<2000		
Naphthalene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
n-Butylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
n-Propylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
o-Xylene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
sec-Butylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	2700	
				Period Mean	<550			
				Period Max	<550			
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	2400
					Period Mean	<490		
					Period Max	<490		
Styrene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	tert-Butylbenzene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700
					Period Mean	<1100		
					Period Max	<1100		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400
					Period Mean	<980		
					Period Max	<980		
	Tetrachloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	Toluene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	trans-1,2-Dichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
		EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980
					Period Mean	<490		
					Period Max	<490		
	trans-1,3-Dichloropropene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100
					Period Mean	<550		
					Period Max	<550		
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980	
				Period Mean	<490			
				Period Max	<490			
Trichloroethene	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	550	1100	
				Period Mean	<550			
				Period Max	<550			
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	490	980	
				Period Mean	<490			
				Period Max	<490			
Trichlorofluoroethane	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400	
				Period Mean	<980			
				Period Max	<980			
Vinyl chloride	EPA 8260B	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1100	2700	
				Period Mean	<1100			
				Period Max	<1100			
	EPA 8260B	µg/kg dry	Plant 2 Cake	10/16/2018	ND	980	2400	
				Period Mean	<980			
				Period Max	<980			
TCLP - Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0027	0.050
					Period Mean	<0.0027		
					Period Max	<0.0027		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0027	0.050
					Period Mean	<0.0027		
Period Max	<0.0027							



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	1,1,1-Trichloroethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0030	0.020
					Period Mean	<0.0030		
					Period Max	<0.0030		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0030	0.020
					Period Mean	<0.0030		
					Period Max	<0.0030		
1,1,2,2-Tetrachloroethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0024	0.020	
				Period Mean	<0.0024			
				Period Max	<0.0024			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0024	0.020	
				Period Mean	<0.0024			
				Period Max	<0.0024			
1,1,2-Trichloroethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0030	0.020	
				Period Mean	<0.0030			
				Period Max	<0.0030			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0030	0.020	
				Period Mean	<0.0030			
				Period Max	<0.0030			
1,1-Dichloroethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0027	0.020	
				Period Mean	<0.0027			
				Period Max	<0.0027			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0027	0.020	
				Period Mean	<0.0027			
				Period Max	<0.0027			
1,1-Dichloroethene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0042	0.050	
				Period Mean	<0.0042			
				Period Max	<0.0042			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0042	0.050	
				Period Mean	<0.0042			
				Period Max	<0.0042			
1,1-Dichloropropene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0028	0.020	
				Period Mean	<0.0028			
				Period Max	<0.0028			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0028	0.020	
				Period Mean	<0.0028			
				Period Max	<0.0028			
1,2,3-Trichlorobenzene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0030	0.050	
				Period Mean	<0.0030			
				Period Max	<0.0030			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0030	0.050	
				Period Mean	<0.0030			
				Period Max	<0.0030			
1,2,3-Trichloropropane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0040	0.10	
				Period Mean	<0.0040			
				Period Max	<0.0040			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0040	0.10	
				Period Mean	<0.0040			
				Period Max	<0.0040			
1,2,4-Trichlorobenzene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0048	0.050	
				Period Mean	<0.0048			
				Period Max	<0.0048			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0048	0.050	
				Period Mean	<0.0048			
				Period Max	<0.0048			
1,2,4-Trimethylbenzene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0023	0.020	
				Period Mean	<0.0023			
				Period Max	<0.0023			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0023	0.020
					Period Mean	<0.0023		
					Period Max	<0.0023		
1,2-Dibromo-3-chloropropane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0097	0.050
					Period Mean	<0.0097		
					Period Max	<0.0097		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0097	0.050
					Period Mean	<0.0097		
					Period Max	<0.0097		
1,2-Dibromoethane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0040	0.020
					Period Mean	<0.0040		
					Period Max	<0.0040		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0040	0.020
					Period Mean	<0.0040		
					Period Max	<0.0040		
1,2-Dichlorobenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0032	0.020
					Period Mean	<0.0032		
					Period Max	<0.0032		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0032	0.020
					Period Mean	<0.0032		
					Period Max	<0.0032		
1,2-Dichloroethane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0028	0.020
					Period Mean	<0.0028		
					Period Max	<0.0028		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0028	0.020
					Period Mean	<0.0028		
					Period Max	<0.0028		
1,2-Dichloropropane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0035	0.020
					Period Mean	<0.0035		
					Period Max	<0.0035		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0035	0.020
					Period Mean	<0.0035		
					Period Max	<0.0035		
1,3,5-Trichlorobenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0050	0.020
					Period Mean	<0.0050		
					Period Max	<0.0050		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0050	0.020
					Period Mean	<0.0050		
					Period Max	<0.0050		
1,3,5-Trimethylbenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0025	0.020
					Period Mean	<0.0025		
					Period Max	<0.0025		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0025	0.020
					Period Mean	<0.0025		
					Period Max	<0.0025		
1,3-Dichlorobenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0035	0.020
					Period Mean	<0.0035		
					Period Max	<0.0035		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0035	0.020
					Period Mean	<0.0035		
					Period Max	<0.0035		
1,3-Dichloropropane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0032	0.020
					Period Mean	<0.0032		
					Period Max	<0.0032		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0032	0.020
					Period Mean	<0.0032		
					Period Max	<0.0032		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
1,4-Dichlorobenzene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0037	0.020	
				Period Mean	<0.0037			
				Period Max	<0.0037			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0037	0.020	
				Period Mean	<0.0037			
				Period Max	<0.0037			
2,2-Dichloropropane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0034	0.020	
				Period Mean	<0.0034			
				Period Max	<0.0034			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0034	0.020	
				Period Mean	<0.0034			
				Period Max	<0.0034			
2-Chlorotoluene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0028	0.050	
				Period Mean	<0.0028			
				Period Max	<0.0028			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0028	0.050	
				Period Mean	<0.0028			
				Period Max	<0.0028			
4-Chlorotoluene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0029	0.050	
				Period Mean	<0.0029			
				Period Max	<0.0029			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0029	0.050	
				Period Mean	<0.0029			
				Period Max	<0.0029			
Acetone	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	1.2	0.10	0.20	
				Period Mean	1.2			
				Period Max	1.2			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	1.1	0.10	0.20	
				Period Mean	1.1			
				Period Max	1.1			
Acrolein	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.040	0.50	
				Period Mean	<0.040			
				Period Max	<0.040			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.040	0.50	
				Period Mean	<0.040			
				Period Max	<0.040			
Acrylonitrile	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.012	0.50	
				Period Mean	<0.012			
				Period Max	<0.012			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.012	0.50	
				Period Mean	<0.012			
				Period Max	<0.012			
Benzene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0028	0.020	
				Period Mean	<0.0028			
				Period Max	<0.0028			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0028	0.020	
				Period Mean	<0.0028			
				Period Max	<0.0028			
Bromobenzene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0027	0.050	
				Period Mean	<0.0027			
				Period Max	<0.0027			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0027	0.050	
				Period Mean	<0.0027			
				Period Max	<0.0027			
Bromochloromethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0040	0.050	
				Period Mean	<0.0040			
				Period Max	<0.0040			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0040	0.050
					Period Mean	<0.0040		
					Period Max	<0.0040		
Bromodichloromethane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0030	0.020
					Period Mean	<0.0030		
					Period Max	<0.0030		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0030	0.020
					Period Mean	<0.0030		
					Period Max	<0.0030		
Bromoform		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0040	0.050
					Period Mean	<0.0040		
					Period Max	<0.0040		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0040	0.050
					Period Mean	<0.0040		
					Period Max	<0.0040		
Bromomethane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0042	0.050
					Period Mean	<0.0042		
					Period Max	<0.0042		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0042	0.050
					Period Mean	<0.0042		
					Period Max	<0.0042		
Carbon tetrachloride		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0028	0.050
					Period Mean	<0.0028		
					Period Max	<0.0028		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0028	0.050
					Period Mean	<0.0028		
					Period Max	<0.0028		
Chlorobenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0036	0.020
					Period Mean	<0.0036		
					Period Max	<0.0036		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0036	0.020
					Period Mean	<0.0036		
					Period Max	<0.0036		
Chloroethane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0040	0.050
					Period Mean	<0.0040		
					Period Max	<0.0040		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0040	0.050
					Period Mean	<0.0040		
					Period Max	<0.0040		
Chloroform		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0033	0.020
					Period Mean	<0.0033		
					Period Max	<0.0033		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0033	0.020
					Period Mean	<0.0033		
					Period Max	<0.0033		
Chloromethane		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0040	0.050
					Period Mean	<0.0040		
					Period Max	<0.0040		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0040	0.050
					Period Mean	<0.0040		
					Period Max	<0.0040		
cis-1,2-Dichloroethene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0032	0.020
					Period Mean	<0.0032		
					Period Max	<0.0032		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0032	0.020
					Period Mean	<0.0032		
					Period Max	<0.0032		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
cis-1,3-Dichloropropene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0022	0.020	
				Period Mean	<0.0022			
				Period Max	<0.0022			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0022	0.020	
				Period Mean	<0.0022			
				Period Max	<0.0022			
Dibromochloromethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0040	0.020	
				Period Mean	<0.0040			
				Period Max	<0.0040			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0040	0.020	
				Period Mean	<0.0040			
				Period Max	<0.0040			
Dibromomethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0036	0.020	
				Period Mean	<0.0036			
				Period Max	<0.0036			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0036	0.020	
				Period Mean	<0.0036			
				Period Max	<0.0036			
Dichlorodifluoromethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0026	0.050	
				Period Mean	<0.0026			
				Period Max	<0.0026			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0026	0.050	
				Period Mean	<0.0026			
				Period Max	<0.0026			
Ethylbenzene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0025	0.020	
				Period Mean	<0.0025			
				Period Max	<0.0025			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0025	0.020	
				Period Mean	<0.0025			
				Period Max	<0.0025			
Hexachlorobutadiene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0038	0.050	
				Period Mean	<0.0038			
				Period Max	<0.0038			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0038	0.050	
				Period Mean	<0.0038			
				Period Max	<0.0038			
Isobutyl alcohol	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.13	0.25	
				Period Mean	<0.13			
				Period Max	<0.13			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.13	0.25	
				Period Mean	<0.13			
				Period Max	<0.13			
Isopropylbenzene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0025	0.020	
				Period Mean	<0.0025			
				Period Max	<0.0025			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0025	0.020	
				Period Mean	<0.0025			
				Period Max	<0.0025			
m,p-Xylenes	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0060	0.020	
				Period Mean	<0.0060			
				Period Max	<0.0060			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0060	0.020	
				Period Mean	<0.0060			
				Period Max	<0.0060			
Methyl ethyl ketone	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.047	0.10	
				Period Mean	<0.047			
				Period Max	<0.047			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.047	0.10
					Period Mean	<0.047		
					Period Max	<0.047		
Methylene Chloride		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	0.014 DNQ	0.0095	0.050
					Period Mean	0.014 DNQ		
					Period Max	0.014 DNQ		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	0.018 DNQ	0.0095	0.050
					Period Mean	0.018 DNQ		
					Period Max	0.018 DNQ		
MIBK		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.035	0.10
					Period Mean	<0.035		
					Period Max	<0.035		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.035	0.10
					Period Mean	<0.035		
					Period Max	<0.035		
Naphthalene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0041	0.050
					Period Mean	<0.0041		
					Period Max	<0.0041		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0041	0.050
					Period Mean	<0.0041		
					Period Max	<0.0041		
n-Butylbenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0037	0.050
					Period Mean	<0.0037		
					Period Max	<0.0037		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0037	0.050
					Period Mean	<0.0037		
					Period Max	<0.0037		
n-Propylbenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0027	0.020
					Period Mean	<0.0027		
					Period Max	<0.0027		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0027	0.020
					Period Mean	<0.0027		
					Period Max	<0.0027		
o-Xylene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0030	0.020
					Period Mean	<0.0030		
					Period Max	<0.0030		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0030	0.020
					Period Mean	<0.0030		
					Period Max	<0.0030		
sec-Butylbenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0025	0.050
					Period Mean	<0.0025		
					Period Max	<0.0025		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0025	0.050
					Period Mean	<0.0025		
					Period Max	<0.0025		
Styrene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0020	0.020
					Period Mean	<0.0020		
					Period Max	<0.0020		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0020	0.020
					Period Mean	<0.0020		
					Period Max	<0.0020		
tert-Butylbenzene		EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0022	0.050
					Period Mean	<0.0022		
					Period Max	<0.0022		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0022	0.050
					Period Mean	<0.0022		
					Period Max	<0.0022		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Tetrachloroethene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0032	0.020
					Period Mean	<0.0032		
					Period Max	<0.0032		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0032	0.020
					Period Mean	<0.0032		
					Period Max	<0.0032		
	Toluene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0036	0.020
					Period Mean	<0.0036		
					Period Max	<0.0036		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0036	0.020
					Period Mean	<0.0036		
					Period Max	<0.0036		
	trans-1,2-Dichloroethene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0030	0.020
					Period Mean	<0.0030		
					Period Max	<0.0030		
		EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0030	0.020
					Period Mean	<0.0030		
					Period Max	<0.0030		
trans-1,3-Dichloropropene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0032	0.020	
				Period Mean	<0.0032			
				Period Max	<0.0032			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0032	0.020	
				Period Mean	<0.0032			
				Period Max	<0.0032			
Trichloroethene	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0026	0.020	
				Period Mean	<0.0026			
				Period Max	<0.0026			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0026	0.020	
				Period Mean	<0.0026			
				Period Max	<0.0026			
Trichlorofluoroethane	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0034	0.050	
				Period Mean	<0.0034			
				Period Max	<0.0034			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0034	0.050	
				Period Mean	<0.0034			
				Period Max	<0.0034			
Vinyl chloride	EPA 8260B	mg/L	Plant 1 Cake	10/16/2018	ND	0.0040	0.050	
				Period Mean	<0.0040			
				Period Max	<0.0040			
	EPA 8260B	mg/L	Plant 2 Cake	10/16/2018	ND	0.0040	0.050	
				Period Mean	<0.0040			
				Period Max	<0.0040			
Semi-Volatile Organic Compounds	1,2,4-Trichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
	1,2-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000
					Period Mean	<7700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000
					Period Mean	<6900		
	1,3-Dichlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000
					Period Mean	<15000		
EPA 8270C		µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000	
				Period Max	<15000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
1,4-Dichlorobenzene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
2,4,5-Trichlorophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	29000	55000
					Period Mean	<29000		
					Period Max	<29000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	26000	49000
					Period Mean	<26000		
					Period Max	<26000		
2,4,6-Trichlorophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	17000	60000
					Period Mean	<17000		
					Period Max	<17000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	16000	54000
					Period Mean	<16000		
					Period Max	<16000		
2,4-Dichlorophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7300	36000
					Period Mean	<7300		
					Period Max	<7300		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6600	32000
					Period Mean	<6600		
					Period Max	<6600		
2,4-Dimethylphenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	14000	36000
					Period Mean	<14000		
					Period Max	<14000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
2,4-Dinitrophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	110000	220000
					Period Mean	<110000		
					Period Max	<110000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	98000	200000
					Period Mean	<98000		
					Period Max	<98000		
2,4-Dinitrotoluene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	8700	36000
					Period Mean	<8700		
					Period Max	<8700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	7800	32000
					Period Mean	<7800		
					Period Max	<7800		
2,6-Dinitrotoluene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	10000	36000
					Period Mean	<10000		
					Period Max	<10000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	9300	32000
					Period Mean	<9300		
					Period Max	<9300		
2-Chloronaphthalene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7300	36000
					Period Mean	<7300		
					Period Max	<7300		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6600	32000
					Period Mean	<6600		
					Period Max	<6600		



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	2-Chlorophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000
					Period Mean	<7700		
					Period Max	<7700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000
					Period Mean	<6900		
					Period Max	<6900		
2-Methylnaphthalene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000	
				Period Mean	<7700			
				Period Max	<7700			
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000
					Period Mean	<6900		
					Period Max	<6900		
2-Methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	8700	36000	
				Period Mean	<8700			
				Period Max	<8700			
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	7800	32000
					Period Mean	<7800		
					Period Max	<7800		
2-Nitroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	19000	36000	
				Period Mean	<19000			
				Period Max	<19000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	17000	32000
					Period Mean	<17000		
					Period Max	<17000		
2-Nitrophenol	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
3,3-Dichlorobenzidine	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	16000	91000	
				Period Mean	<16000			
				Period Max	<16000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	15000	81000
					Period Mean	<15000		
					Period Max	<15000		
3-Nitroaniline	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
4,6-Dinitro-2-methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	46000	
				Period Mean	<15000			
				Period Max	<15000			
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	41000
					Period Mean	<13000		
					Period Max	<13000		
4-Bromophenyl phenyl ether	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	8200	36000	
				Period Mean	<8200			
				Period Max	<8200			
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	7300	32000
					Period Mean	<7300		
					Period Max	<7300		
4-Chloro-3-methylphenol	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	22000	44000	
				Period Mean	<22000			
				Period Max	<22000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	20000	39000
					Period Mean	<20000		
					Period Max	<20000		
4-Chloroaniline		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	16000	110000
					Period Mean	<16000		
					Period Max	<16000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	15000	98000
					Period Mean	<15000		
					Period Max	<15000		
4-Chlorophenyl phenyl ether		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	22000	120000
					Period Mean	<22000		
					Period Max	<22000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	20000	110000
					Period Mean	<20000		
					Period Max	<20000		
4-Methylphenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
4-Nitroaniline		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	91000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	81000
					Period Mean	<13000		
					Period Max	<13000		
4-Nitrophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	55000	320000
					Period Mean	<55000		
					Period Max	<55000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	49000	280000
					Period Mean	<49000		
					Period Max	<49000		
Acenaphthene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	19000	38000
					Period Mean	<19000		
					Period Max	<19000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	17000	34000
					Period Mean	<17000		
					Period Max	<17000		
Acenaphthylene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000
					Period Mean	<7700		
					Period Max	<7700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000
					Period Mean	<6900		
					Period Max	<6900		
Aniline		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	110000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	14000	98000
					Period Mean	<14000		
					Period Max	<14000		
Anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	8700	36000
					Period Mean	<8700		
					Period Max	<8700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	7800	32000
					Period Mean	<7800		
					Period Max	<7800		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Azobenzene/1,2-Diphenylhydrazine	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000	
				Period Mean	<7700			
				Period Max	<7700			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000	
				Period Mean	<6900			
				Period Max	<6900			
Benz(a)anthracene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000	
				Period Mean	<7700			
				Period Max	<7700			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000	
				Period Mean	<6900			
				Period Max	<6900			
Benzidine	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	19000	230000	
				Period Mean	<19000			
				Period Max	<19000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	17000	210000	
				Period Mean	<17000			
				Period Max	<17000			
Benzo(a)pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7300	36000	
				Period Mean	<7300			
				Period Max	<7300			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6600	32000	
				Period Mean	<6600			
				Period Max	<6600			
Benzo(b)fluoranthene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000	
				Period Mean	<7700			
				Period Max	<7700			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000	
				Period Mean	<6900			
				Period Max	<6900			
Benzo(g,h,i)perylene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	12000	36000	
				Period Mean	<12000			
				Period Max	<12000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	11000	32000	
				Period Mean	<11000			
				Period Max	<11000			
Benzo(k)fluoranthene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000	
				Period Mean	<7700			
				Period Max	<7700			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000	
				Period Mean	<6900			
				Period Max	<6900			
Benzoic acid	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	52000	100000	
				Period Mean	<52000			
				Period Max	<52000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	47000	93000	
				Period Mean	<47000			
				Period Max	<47000			
Benzyl alcohol	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	45000	370000	
				Period Mean	<45000			
				Period Max	<45000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	40000	330000	
				Period Mean	<40000			
				Period Max	<40000			
Bis(2-chloroethoxy)methane	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000	
				Period Mean	<15000			
				Period Max	<15000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
Bis(2-chloroethyl)ether		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000
					Period Mean	<7700		
					Period Max	<7700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000
					Period Mean	<6900		
					Period Max	<6900		
Bis(2-chloroisopropyl) ether		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		
Bis(2-ethylhexyl)phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	42000	9800	36000
					Period Mean	42000		
					Period Max	42000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	58000	8800	32000
					Period Mean	58000		
					Period Max	58000		
Butyl benzyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	8700	36000
					Period Mean	<8700		
					Period Max	<8700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	7800	32000
					Period Mean	<7800		
					Period Max	<7800		
Chrysene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	8200	36000
					Period Mean	<8200		
					Period Max	<8200		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	7300	32000
					Period Mean	<7300		
					Period Max	<7300		
Dibenz(a,h)anthracene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	11000	46000
					Period Mean	<11000		
					Period Max	<11000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	9800	41000
					Period Mean	<9800		
					Period Max	<9800		
Dibenzofuran		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	14000	32000
					Period Mean	<14000		
					Period Max	<14000		
Diethyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	10000	36000
					Period Mean	<10000		
					Period Max	<10000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	9300	32000
					Period Mean	<9300		
					Period Max	<9300		
Dimethyl phthalate		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7300	36000
					Period Mean	<7300		
					Period Max	<7300		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6600	32000
					Period Mean	<6600		
					Period Max	<6600		

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
Di-n-butyl phthalate	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	9800	36000	
				Period Mean	<9800			
				Period Max	<9800			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	8800	32000	
				Period Mean	<8800			
				Period Max	<8800			
Di-n-octyl phthalate	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	9800	36000	
				Period Mean	<9800			
				Period Max	<9800			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	8800	32000	
				Period Mean	<8800			
				Period Max	<8800			
Fluoranthene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	17000	36000	
				Period Mean	<17000			
				Period Max	<17000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	16000	32000	
				Period Mean	<16000			
				Period Max	<16000			
Fluorene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000	
				Period Mean	<7700			
				Period Max	<7700			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000	
				Period Mean	<6900			
				Period Max	<6900			
Hexachlorobenzene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000	
				Period Mean	<7700			
				Period Max	<7700			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000	
				Period Mean	<6900			
				Period Max	<6900			
Hexachlorobutadiene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000	
				Period Mean	<15000			
				Period Max	<15000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000	
				Period Mean	<13000			
				Period Max	<13000			
Hexachlorocyclopentadiene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	34000	91000	
				Period Mean	<34000			
				Period Max	<34000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	30000	81000	
				Period Mean	<30000			
				Period Max	<30000			
Hexachloroethane	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000	
				Period Mean	<7700			
				Period Max	<7700			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000	
				Period Mean	<6900			
				Period Max	<6900			
Indeno(1,2,3-cd)pyrene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	14000	36000	
				Period Mean	<14000			
				Period Max	<14000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000	
				Period Mean	<13000			
				Period Max	<13000			
Isophorone	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7300	36000	
				Period Mean	<7300			
				Period Max	<7300			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6600	32000
					Period Mean	<6600		
					Period Max	<6600		
Naphthalene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7300	36000
					Period Mean	<7300		
					Period Max	<7300		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6600	32000
					Period Mean	<6600		
					Period Max	<6600		
Nitrobenzene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000
					Period Mean	<7700		
					Period Max	<7700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000
					Period Mean	<6900		
					Period Max	<6900		
N-Nitrosodimethyl amine		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	36000
					Period Mean	<7700		
					Period Max	<7700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	32000
					Period Mean	<6900		
					Period Max	<6900		
N-Nitroso-di-n-propylamine		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	7700	27000
					Period Mean	<7700		
					Period Max	<7700		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	6900	24000
					Period Mean	<6900		
					Period Max	<6900		
N-Nitrosodiphenyl amine		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	17000	82000
					Period Mean	<17000		
					Period Max	<17000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	16000	73000
					Period Mean	<16000		
					Period Max	<16000		
Pentachlorophenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	37000	91000
					Period Mean	<37000		
					Period Max	<37000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	33000	81000
					Period Mean	<33000		
					Period Max	<33000		
Phenanthrene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	16000	36000
					Period Mean	<16000		
					Period Max	<16000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	15000	32000
					Period Mean	<15000		
					Period Max	<15000		
Phenol		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	9800	36000
					Period Mean	<9800		
					Period Max	<9800		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	8800	32000
					Period Mean	<8800		
					Period Max	<8800		
Pyrene		EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	15000	36000
					Period Mean	<15000		
					Period Max	<15000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	13000	32000
					Period Mean	<13000		
					Period Max	<13000		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Pyridine	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	ND	16000	37000
					Period Mean	<16000		
					Period Max	<16000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	ND	15000	33000
					Period Mean	<15000		
					Period Max	<15000		
Organochlorine Pesticides	Aldrin	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	270	1800
					Period Mean	<270		
					Period Max	<270		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	250	1700
					Period Mean	<250		
					Period Max	<250		
	alpha-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	230	1800
					Period Mean	<230		
					Period Max	<230		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	210	1700
					Period Mean	<210		
					Period Max	<210		
	beta-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	710	1800
					Period Mean	<710		
					Period Max	<710		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	650	1700
					Period Mean	<650		
					Period Max	<650		
	Chlordane	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	8400	27000
					Period Mean	<8400		
					Period Max	<8400		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	7700	25000
					Period Mean	<7700		
					Period Max	<7700		
delta-BHC	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	430	1800	
				Period Mean	<430			
				Period Max	<430			
	EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	390	1700	
				Period Mean	<390			
				Period Max	<390			
Dieldrin	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	230	1800	
				Period Mean	<230			
				Period Max	<230			
	EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	210	1700	
				Period Mean	<210			
				Period Max	<210			
Endosulfan 1	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	190	1800	
				Period Mean	<190			
				Period Max	<190			
	EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	170	1700	
				Period Mean	<170			
				Period Max	<170			
Endosulfan 2	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	310	1800	
				Period Mean	<310			
				Period Max	<310			
	EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	280	1700	
				Period Mean	<280			
				Period Max	<280			
Endosulfan Sulfate	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	300	1800	
				Period Mean	<300			
				Period Max	<300			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	270	1700
					Period Mean	<270		
					Period Max	<270		
Endrin		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	330	1800
					Period Mean	<330		
					Period Max	<330		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	300	1700
					Period Mean	<300		
					Period Max	<300		
Endrin Aldehyde		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	180	1800
					Period Mean	<180		
					Period Max	<180		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	170	1700
					Period Mean	<170		
					Period Max	<170		
Endrin Ketone		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	530	1800
					Period Mean	<530		
					Period Max	<530		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	480	1700
					Period Mean	<480		
					Period Max	<480		
gamma-BHC		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	500	1800
					Period Mean	<500		
					Period Max	<500		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	460	1700
					Period Mean	<460		
					Period Max	<460		
Heptachlor		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	230	1800
					Period Mean	<230		
					Period Max	<230		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	210	1700
					Period Mean	<210		
					Period Max	<210		
Heptachlor Epoxide		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	460	1800
					Period Mean	<460		
					Period Max	<460		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	420	1700
					Period Mean	<420		
					Period Max	<420		
Kepone		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	27000	81000
					Period Mean	<27000		
					Period Max	<27000		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	25000	74000
					Period Mean	<25000		
					Period Max	<25000		
Methoxychlor		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	480	3500
					Period Mean	<480		
					Period Max	<480		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	440	3200
					Period Mean	<440		
					Period Max	<440		
Mirex		EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	290	1800
					Period Mean	<290		
					Period Max	<290		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	260	1700
					Period Mean	<260		
					Period Max	<260		



## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	o,p'-DDD	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	390	1800
					Period Mean	<390		
					Period Max	<390		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	350	1700
					Period Mean	<350		
					Period Max	<350		
	o,p'-DDE	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	700	1800
					Period Mean	<700		
					Period Max	<700		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	640	1700
					Period Mean	<640		
					Period Max	<640		
	o,p'-DDT	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	570	1800
					Period Mean	<570		
					Period Max	<570		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	520	1700
					Period Mean	<520		
					Period Max	<520		
	p,p'-DDD	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	590	1800
					Period Mean	<590		
					Period Max	<590		
		EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	540	1700
					Period Mean	<540		
					Period Max	<540		
p,p'-DDE	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	260	1800	
				Period Mean	<260			
				Period Max	<260			
	EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	230	1700	
				Period Mean	<230			
				Period Max	<230			
p,p'-DDT	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	630	1800	
				Period Mean	<630			
				Period Max	<630			
	EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	580	1700	
				Period Mean	<580			
				Period Max	<580			
Total DDTs	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	0.0	--	--	
				Period Mean	#VALUE!			
				Period Max	#VALUE!			
	EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	0.0	--	--	
				Period Mean	#VALUE!			
				Period Max	#VALUE!			
Toxaphene	EPA 8081A	µg/kg dry	Plant 1 Cake	10/16/2018	ND	17000	72000	
				Period Mean	<17000			
				Period Max	<17000			
	EPA 8081A	µg/kg dry	Plant 2 Cake	10/16/2018	ND	16000	66000	
				Period Mean	<16000			
				Period Max	<16000			
PCBs	PCB 1016	EPA 8082	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1400	4100
					Period Mean	<1400		
					Period Max	<1400		
	EPA 8082	µg/kg dry	Plant 2 Cake	10/16/2018	ND	680	2000	
				Period Mean	<680			
				Period Max	<680			
	PCB 1221	EPA 8082	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1400	4100
					Period Mean	<1400		
					Period Max	<1400		

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 8082	µg/kg dry	Plant 2 Cake	10/16/2018	ND	680	2000
					Period Mean	<680		
					Period Max	<680		
	PCB 1232	EPA 8082	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1400	4100
					Period Mean	<1400		
					Period Max	<1400		
		EPA 8082	µg/kg dry	Plant 2 Cake	10/16/2018	ND	680	2000
					Period Mean	<680		
					Period Max	<680		
	PCB 1242	EPA 8082	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1400	4100
					Period Mean	<1400		
					Period Max	<1400		
		EPA 8082	µg/kg dry	Plant 2 Cake	10/16/2018	ND	680	2000
					Period Mean	<680		
					Period Max	<680		
	PCB 1248	EPA 8082	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1400	4100
					Period Mean	<1400		
					Period Max	<1400		
		EPA 8082	µg/kg dry	Plant 2 Cake	10/16/2018	ND	680	2000
					Period Mean	<680		
					Period Max	<680		
	PCB 1254	EPA 8082	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1400	4100
					Period Mean	<1400		
					Period Max	<1400		
	EPA 8082	µg/kg dry	Plant 2 Cake	10/16/2018	ND	680	2000	
				Period Mean	<680			
				Period Max	<680			
PCB 1260	EPA 8082	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1400	4100	
				Period Mean	<1400			
				Period Max	<1400			
	EPA 8082	µg/kg dry	Plant 2 Cake	10/16/2018	ND	680	2000	
				Period Mean	<680			
				Period Max	<680			
PCB_HR_DM	EPA 8082	µg/kg dry	Plant 1 Cake	10/16/2018	ND	1400	4100	
				Period Mean	<1400			
				Period Max	<1400			
	EPA 8082	µg/kg dry	Plant 2 Cake	10/16/2018	ND	680	2000	
				Period Mean	<680			
				Period Max	<680			
Dioxins/Furans	2,3,7,8-TCDD	EPA 1613B	pg/g dry	Plant 1 Cake	10/16/2018	ND	2.4	5.6
					Period Mean	<2.4		
					Period Max	<2.4		
		EPA 1613B	pg/g dry	Plant 2 Cake	10/16/2018	ND	0.54	5.0
					Period Mean	<0.54		
					Period Max	<0.54		
Tentatively Identified Compounds	17-(1,5-DIMETHYLHEXYL)-10,13-DIMETHYL-4,7,8-TRIFLUOROBIPHENYL-3-OL	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	270000	--	55000
					Period Mean	270000		
					Period Max	270000		
	Cholest-4-en-3-one	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	430000	--	49000
					Period Mean	430000		
					Period Max	430000		
	CHOLEST-5-EN-3-ONE	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	450000	--	55000
					Period Mean	450000		
					Period Max	450000		

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - September - October

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
	Cholestan-3-ol	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	2200000	--	55000
					Period Mean	2200000		
					Period Max	2200000		
		EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	3000000	--	49000
					Period Mean	3000000		
					Period Max	3000000		
	Cholestan-3-one	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	190000	--	55000
					Period Mean	190000		
					Period Max	190000		
	n-Hexadecanoic acid	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	610000	--	55000
					Period Mean	610000		
					Period Max	610000		
EPA 8270C		µg/kg dry	Plant 2 Cake	10/16/2018	630000	--	49000	
				Period Mean	630000			
				Period Max	630000			
Squalene	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	350000	--	55000	
				Period Mean	350000			
				Period Max	350000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	520000	--	49000	
				Period Mean	520000			
				Period Max	520000			
UNKNOWN	EPA 8270C	µg/kg dry	Plant 1 Cake	10/16/2018	430000	--	55000	
				Period Mean	430000			
				Period Max	430000			
	EPA 8270C	µg/kg dry	Plant 2 Cake	10/16/2018	670000	--	49000	
				Period Mean	670000			
				Period Max	670000			

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - November - December

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
General Chemistry	Ammonia-N	SM 4500 NH3 G	mg/kg dry weight	Plant 1 Cake	11/06/2018	6900	280	1400
					12/11/2018	7800	290	1500
					Period Mean	7400		
					Period Max	7800		
		SM 4500 NH3 G	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	5300	230	1100
					11/29/2018	5100	220	1100
					12/04/2018	6100	240	1200
					12/11/2018	6100	240	1200
		Period Mean	5600					
		Period Max	6100					
		SM 4500 NH3 G	mg/kg dry weight	Plant 2 Cake	11/06/2018	5700	240	1200
					11/27/2018	5500	250	1200
	12/04/2018				6300	250	1300	
	12/11/2018				5900	240	1200	
	Period Mean	5800						
Period Max	6300							
Kjeldahl Nitrogen	EPA 351.2	mg/kg dry weight	Plant 1 Cake	11/06/2018	57000	9400	12000	
				12/11/2018	59000	5600	7400	
				Period Mean	58000			
				Period Max	59000			
	EPA 351.2	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	57000	6800	9100	
				11/29/2018	59000	5000	6700	
				12/04/2018	64000	6900	9200	
				12/11/2018	46000	5500	7400	
	Period Mean	56000						
	Period Max	64000						
				COMBINED MEAN	57000			
	EPA 351.2	mg/kg dry weight	Plant 2 Cake	11/06/2018	45000	8700	12000	
				11/27/2018	48000	7900	11000	
				12/04/2018	56000	5400	7200	
				12/11/2018	60000	7000	9300	
	Period Mean	52000						
	Period Max	60000						
	Nitrate-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	11/06/2018	ND	4.5	6.3
12/11/2018					ND	4.8	6.5	
Period Mean					<4.8			
Period Max					<4.8			
EPA 300.0		mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	ND	3.7	5.1	
				11/29/2018	ND	3.6	4.9	
				12/04/2018	ND	3.9	5.3	
				12/11/2018	ND	3.9	5.3	
Period Mean		<3.9						
Period Max		<3.9						
EPA 300.0		mg/kg dry weight	Plant 2 Cake	11/06/2018	ND	3.9	5.4	
				11/27/2018	ND	4	5.5	
	12/04/2018			ND	4.1	5.7		
	12/11/2018			ND	3.9	5.4		
Period Mean	<4.1							
Period Max	<4.1							
Nitrite-N	EPA 300.0	mg/kg dry weight	Plant 1 Cake	11/06/2018	ND	6.3	8.5	
				12/11/2018	ND	6.5	8.9	
				Period Mean	<6.5			
				Period Max	<6.5			
	EPA 300.0	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	ND	5.1	6.9	
				11/29/2018	ND	4.9	6.7	
			12/04/2018	ND	5.3	7.3		

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - November - December**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL			
Organic Nitrogen	pH	EPA 9045C	pH units	Plant 1 Cake	12/11/2018	ND	5.3	7.2			
					Period Mean	<5.3					
					Period Max	<5.3					
					EPA 300.0	mg/kg dry weight	Plant 2 Cake	11/06/2018	ND	5.4	7.4
								11/27/2018	ND	5.5	7.4
		12/04/2018	ND	5.7				7.7			
		12/11/2018	ND	5.4				7.3			
		Period Mean	<5.7								
		Period Max	<5.7								
		Organic Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	11/06/2018	50000	--	--		
	12/11/2018					51000	--	--			
	Period Mean					50000					
	Period Max					51000					
	CALC					mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	52000	--	--
			11/29/2018	54000	--			--			
			12/04/2018	58000	--			--			
			12/11/2018	40000	--			--			
			Period Mean	51000							
	Period Max		58000								
	Organic Nitrogen	CALC	mg/kg dry weight	Plant 2 Cake	11/06/2018	39000	--	--			
					11/27/2018	43000	--	--			
12/04/2018					50000	--	--				
12/11/2018					54000	--	--				
Period Mean					46000						
Period Max		54000									
pH		EPA 9045C	pH units	Plant 1 Cake	11/06/2018	8	0.1	0.1			
					12/11/2018	8.1	0.1	0.1			
					Period Mean	8					
					Period Max	8.1					
	EPA 9045C				pH units	Plant 1 Dewatering Cake	11/27/2018	8.1	0.1	0.1	
		11/29/2018	7.7	0.1			0.1				
		12/04/2018	7.6	0.1			0.1				
		12/11/2018	8	0.1			0.1				
		Period Mean	7.8								
	Period Max	8.1									
	EPA 9045C	pH units	Plant 2 Cake	11/06/2018	7.9	0.1	0.1				
				11/27/2018	8.1	0.1	0.1				
				12/04/2018	7.7	0.1	0.1				
				12/11/2018	8.1	0.1	0.1				
				Period Mean	8						
Period Max	8.1										
Total Nitrogen	CALC	mg/kg dry weight	Plant 1 Cake	11/06/2018	57000	--	--				
				12/11/2018	59000	--	--				
				Period Mean	58000						
				Period Max	59000						
				CALC	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	57000	--	--	
	11/29/2018	59000	--				--				
	12/04/2018	64000	--				--				
	12/11/2018	46000	--				--				
	Period Mean	56000									
	Period Max	64000									
					COMBINED MEAN	57000					
	CALC	mg/kg dry weight	Plant 2 Cake	11/06/2018	45000	--	--				
				11/27/2018	48000	--	--				
				12/04/2018	56000	--	--				
				12/11/2018	60000	--	--				

### Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - November - December

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL				
	Total Solids	SM 2540G	%	Plant 1 Cake	Period Mean	52000						
					Period Max	60000						
					11/06/2018	18	0.05	0.05				
					12/11/2018	17	0.05	0.05				
					Period Mean	18						
					Period Max	18						
					11/27/2018	23	0.05	0.05				
					11/29/2018	23	0.05	0.05				
					12/04/2018	21	0.05	0.05				
					12/11/2018	21	0.05	0.05				
					Period Mean	22						
					Period Max	23						
					11/06/2018	20	0.05	0.05				
					11/27/2018	21	0.05	0.05				
					12/04/2018	19	0.05	0.05				
12/11/2018	21	0.05	0.05									
Period Mean	20											
Period Max	21											
Trace Elements	Arsenic	EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018	23	3.1	17				
					12/11/2018	18	3.2	17				
					Period Mean	20						
					Period Max	23						
					11/27/2018	18	2.5	14				
					11/29/2018	19	2.5	13				
					12/04/2018	15	2.7	14				
					12/11/2018	15	2.6	14				
					Period Mean	17						
					Period Max	19						
					COMBINED MEAN					18		
					EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018	24	2.7	15	
	11/27/2018	20	2.7	15								
	12/04/2018	18	2.8	15								
	12/11/2018	18	2.7	14								
	Period Mean	20										
	Period Max	24										
	Cadmium	EPA 6010B	mg/kg dry weight	Plant 1 Cake				11/06/2018	1.7 DNQ	0.14	2.8	
								12/11/2018	1.7 DNQ	0.14	2.9	
								Period Mean	1.7 DNQ			
								Period Max	1.7 DNQ			
								11/27/2018	1.4 DNQ	0.11	2.3	
								11/29/2018	1.4 DNQ	0.11	2.2	
					12/04/2018	1.3 DNQ	0.12	2.4				
					12/11/2018	1.3 DNQ	0.12	2.4				
					Period Mean	1.4 DNQ						
					Period Max	1.4 DNQ						
COMBINED MEAN					1.5 DNQ							
EPA 6010B					mg/kg dry weight	Plant 2 Cake	11/06/2018	4	0.12	2.4		
	11/27/2018	5.3	0.12	2.5								
	12/04/2018	4.1	0.13	2.6								
	12/11/2018	4.1	0.12	2.4								
	Period Mean	4.4										
	Period Max	5.3										
	Chromium	EPA 6010B	mg/kg dry weight	Plant 1 Cake			11/06/2018	42	1.2	11		
							12/11/2018	38	1.3	12		
							Period Mean	40				

## Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - November - December

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
					Period Max	42		
		EPA 6010B	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	35	0.97	9
					11/29/2018	36	0.96	8.9
					12/04/2018	31	1	9.6
					12/11/2018	32	1	9.5
					Period Mean	34		
					Period Max	36		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018	58	1	9.7
					11/27/2018	48	1.1	9.9
					12/04/2018	38	1.1	10
					12/11/2018	40	1	9.7
					Period Mean	46		
					Period Max	58		
Copper	EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018	480	2.5	14	
				12/11/2018	500	2.6	15	
				Period Mean	490			
				Period Max	500			
	EPA 6010B	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	430	2	11	
				11/29/2018	450	2	11	
				12/04/2018	420	2.1	12	
				12/11/2018	420	2.1	12	
				Period Mean	430			
				Period Max	450			
	COMBINED MEAN					450		
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018	530	2.1	12	
				11/27/2018	490	2.2	12	
				12/04/2018	410	2.3	13	
12/11/2018				470	2.1	12		
Period Mean				480				
Period Max				530				
Iron	EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018	84000	12	56	
				12/11/2018	66000	13	58	
				Period Mean	75000			
				Period Max	84000			
	EPA 6010B	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	69000	10	45	
				11/29/2018	68000	9.9	45	
				12/04/2018	51000	11	48	
				12/11/2018	59000	11	47	
				Period Mean	62000			
				Period Max	69000			
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018	83000	11	49	
				11/27/2018	74000	11	49	
				12/04/2018	65000	11	52	
				12/11/2018	71000	11	48	
Period Mean				73000				
Period Max				83000				
Lead	EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018	17	0.76	5.6	
				12/11/2018	13	0.8	5.8	
				Period Mean	15			
				Period Max	17			
	EPA 6010B	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	11	0.62	4.5	
				11/29/2018	12	0.61	4.5	
				12/04/2018	9.7	0.66	4.8	
				12/11/2018	10	0.65	4.7	
				Period Mean	11			
				Period Max	12			

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - November - December**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
					COMBINED MEAN	12		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018	13	0.67	4.9
					11/27/2018	12	0.68	4.9
					12/04/2018	12	0.71	5.2
					12/11/2018	13	0.66	4.8
					Period Mean	12		
					Period Max	13		
	Magnesium	EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018	7300	19	140
					12/11/2018	5200	20	150
					Period Mean	6200		
					Period Max	7300		
		EPA 6010B	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	6100	15	110
					11/29/2018	6000	15	110
					12/04/2018	3700	16	120
					12/11/2018	4500	16	120
					Period Mean	5100		
					Period Max	6100		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018	8200	16	120
					11/27/2018	7800	17	120
					12/04/2018	6400	17	130
					12/11/2018	6600	16	120
					Period Mean	7200		
					Period Max	8200		
	Mercury	EPA 7471A	mg/kg dry weight	Plant 1 Cake	11/06/2018	1.2	0.068	0.11
					12/11/2018	0.67	0.07	0.12
					Period Mean	0.94		
					Period Max	1.2		
		EPA 7471A	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	0.97	0.055	0.092
					11/29/2018	0.78	0.053	0.088
					12/04/2018	0.45	0.057	0.095
					12/11/2018	0.78	0.057	0.095
					Period Mean	0.74		
					Period Max	0.97		
					COMBINED MEAN	0.81		
		EPA 7471A	mg/kg dry weight	Plant 2 Cake	11/06/2018	1.3	0.06	0.1
					11/27/2018	0.73	0.059	0.099
					12/04/2018	0.58	0.061	0.1
					12/11/2018	0.72	0.057	0.095
					Period Mean	0.83		
					Period Max	1.3		
	Molybdenum	EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018	19	0.32	11
					12/11/2018	19	0.33	12
					Period Mean	19		
					Period Max	19		
		EPA 6010B	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	22	0.26	9
					11/29/2018	18	0.25	8.9
					12/04/2018	15	0.27	9.6
					12/11/2018	15	0.27	9.5
					Period Mean	18		
					Period Max	22		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018	18	0.28	9.7
					11/27/2018	18	0.28	9.9
					12/04/2018	15	0.29	10
					12/11/2018	16	0.27	9.7
					Period Mean	17		



**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - November - December**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL			
Nickel	EPA 6010B	mg/kg dry weight	Plant 1 Cake	Period Max		18					
				11/06/2018		34	1	11			
				12/11/2018		35	1	12			
				Period Mean		34					
				Period Max		35					
				11/27/2018		50	0.81	9			
				11/29/2018		31	0.8	8.9			
				12/04/2018		27	0.87	9.6			
	12/11/2018		29	0.85	9.5						
	Period Mean		34								
	Period Max		50								
	COMBINED MEAN					34					
	EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018		38	0.87	9.7			
				11/27/2018		39	0.89	9.9			
				12/04/2018		32	0.93	10			
				12/11/2018		33	0.87	9.7			
				Period Mean		36					
				Period Max		39					
				EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018		ND	3.1	28
							12/11/2018		ND	3.3	29
Period Mean		<3.3									
Period Max		<3.3									
11/27/2018		ND	2.5				23				
11/29/2018		ND	2.5				22				
12/04/2018		ND	2.7				24				
12/11/2018		ND	2.7				24				
Period Mean		<2.7									
Period Max		<2.7									
COMBINED MEAN					<3.3						
EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018		ND	2.7	24				
			11/27/2018		ND	2.8	25				
			12/04/2018		ND	2.9	26				
			12/11/2018		ND	2.7	24				
			Period Mean		<2.9						
			Period Max		<2.9						
			EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018		3.9 DNQ	0.79	14	
						12/11/2018		3.5 DNQ	0.82	15	
Period Mean		3.7 DNQ									
Period Max		3.9 DNQ									
11/27/2018		3.9 DNQ				0.64	11				
11/29/2018		4.8 DNQ				0.63	11				
12/04/2018		3.6 DNQ				0.68	12				
12/11/2018		3.3 DNQ				0.67	12				
Period Mean		3.9 DNQ									
Period Max		4.8 DNQ									
EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018		5.1 DNQ	0.69	12				
			11/27/2018		3.1 DNQ	0.7	12				
			12/04/2018		3.5 DNQ	0.73	13				
			12/11/2018		3.5 DNQ	0.68	12				
			Period Mean		3.8 DNQ						
			Period Max		5.1 DNQ						
			EPA 6010B	mg/kg dry weight	Plant 1 Cake	11/06/2018		680	9.7	28	
						12/11/2018		680	10	29	
Period Mean		680									
Period Max		680									

**Summary of Priority Pollutants and Trace Constituents Analysis in Biosolids for 2018 - November - December**

Category	Parameter	Method	Units	Sample Location	Sample Date	Result	MDL	RL
		EPA 6010B	mg/kg dry weight	Plant 1 Dewatering Cake	11/27/2018	580	7.8	23
					11/29/2018	620	7.7	22
					12/04/2018	600	8.3	24
					12/11/2018	560	8.2	24
					Period Mean	590		
					Period Max	620		
					COMBINED MEAN	620		
		EPA 6010B	mg/kg dry weight	Plant 2 Cake	11/06/2018	810	8.4	24
					11/27/2018	730	8.5	25
					12/04/2018	680	8.9	26
					12/11/2018	700	8.3	24
					Period Mean	730		
					Period Max	810		



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**NPDES ID:** CAL110604

**Facility Status:** Active

**Facility Name:** ORANGE COUNTY SD #1

10844 ELLIS AVENUE FOUNTAIN VALLEY, CA 92708-7018

# View Annual Report

	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 <b>BIOSOLIDS ANNUAL REPORT</b>	<b>FORM</b> Approved OMB No. 2040-0004
<p>EPA's sewage sludge regulations require certain publicly owned treatment works (POTWs) and Class I sewage sludge management facilities to submit to a Sewage Sludge (Biosolids) Annual Report (see 40 CFR 503.18 (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_118">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_118</a>), 503.28 (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_128">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_128</a>), 503.48 (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_148">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_148</a>)). Facilities that must submit a Sewage Sludge (Biosolids) Annual Report include POTWs with a design flow rate equal to or greater than one million gallons per day, POTWs that serve 10,000 people or more, Class I Sludge Management Facilities (as defined by 40 CFR 503.9 (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_19">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_19</a>)), and facilities otherwise required to file this report (e.g., permit condition, enforcement action, state law). This is the electronic form for Sewage Sludge (Biosolids) Annual Report filers to use if they are located in one of the states, tribes, or territories (<a href="https://www.epa.gov/npdes/npdes-state-program-information">https://www.epa.gov/npdes/npdes-state-program-information</a>) where EPA administers the Federal biosolids program.</p> <p>For the purposes of this form, the term 'sewage sludge' (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_19">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_19</a>) also refers to the material that is commonly referred to as 'biosolids'. EPA does not have a regulatory definition for biosolids but this material is commonly referred to as sewage sludge that is placed on, or applied to the land to use the beneficial properties of the material as a soil amendment, conditioner, or fertilizer. EPA's use of the term 'biosolids' in this form is to confirm that information about beneficially used sewage sludge (a.k.a. biosolids) should be reported on this form.</p> <p>Please note that EPA may contact you after you submit this report for more information regarding your sewage sludge management program.</p>		
<p>Program Information</p>		
<p><b>Please select at least one of the following options pertaining to your obligation to submit a Sewage Sludge (Biosolids) Annual Report in compliance with 40 CFR part 503. The facility is:</b></p> <ul style="list-style-type: none"> <li>• a Class I Sludge Management Facility as defined in 40 CFR 503.9</li> <li>• a POTW with a design flow rate equal to or greater than one million gallons per day</li> <li>• a POTW that serves 10,000 people or more</li> </ul> <p><b>In the reporting period, did you manage your sewage sludge or biosolids using any of the following management practices: land application, surface disposal, or incineration?</b> <input checked="" type="checkbox"/> YES</p> <p><input type="checkbox"/> NO</p> <p><b>If your facility is a POTW, please provide the estimated total amount of sewage sludge produced at your facility for the reporting period (in dry metric tons). If your facility is not a POTW, please provide the estimated total amount of biosolids produced at your facility for the reporting period (in dry metric tons).</b></p> <p><u>24204</u></p> <p><b>Reporting Period Start Date:</b> <u>01/01/2018</u> <span style="float: right;"><b>Reporting Period End Date:</b> <u>12/31/2018</u></span></p>		
<p>Treatment Processes</p>		
<p><b>Processes to Significantly Reduce Pathogens (PSRP):</b>  <u>Anaerobic Digestion</u></p> <p><b>Processes to Further Reduce Pathogens (PFRP):</b></p> <p><b>Physical Treatment Options:</b>  <u>Preliminary Operations (e.g., sludge grinding, dewatering, blending)</u>  <u>Thickening (e.g., gravity and/or flotation thickening, centrifugation, belt filter press, vacuum filter)</u></p> <p><b>Other Processes to Manage Sewage Sludge:</b>  <u>Methane or Biogas Capture and Recovery</u></p>		

Analytical Methods

Did you use any analytical methods to analyze sewage sludge in the reporting period?  YES  NO

**Analytical Methods**

- EPA Method 6010 - Arsenic (ICP-OES)
- EPA Method 6010 - Cadmium (ICP-OES)
- EPA Method 6010 - Chromium (ICP-OES)
- EPA Method 6010 - Copper (ICP-OES)
- EPA Method 6010 - Lead (ICP-OES)
- EPA Method 7471 - Mercury (CVAA)
- EPA Method 6010 - Molybdenum (ICP-OES)
- EPA Method 6010 - Nickel (ICP-OES)
- EPA Method 6010 - Selenium (ICP-OES)
- EPA Method 6010 - Zinc (ICP-OES)
- EPA Method 6010 - Beryllium (ICP-OES)
- EPA Method 351.2 - Total Kjeldahl Nitrogen
- Standard Method 4500-NH<sub>3</sub> - Ammonia Nitrogen
- Standard Method 2540 - Total Solids
- Standard Method 2540 - Volatile Solids
- EPA Method 1311 - Toxicity Characteristic Leaching Procedure
- EPA Method 9045 - pH (> 7% solids)

**Other Analytical Methods**

- Other Nitrate Nitrogen Analytical Method

**Other Analytical Methods Text Area:**

EPA 300.0

Sludge Management - Land Application

ID: 003

Amount: 2938.9

Management Practice Detail: Agricultural Land Application

Bulk or Bag/Container: Bulk

Handler, Preparer, or Applier Type: Off-Site Third-Party Handler or Applier

NPDES ID of handler:

Facility Information:

Tule Ranch / Ag-Tech  
4324 E. Ashlan Ave.  
Fresno, CA 93726

Contact Information:

Shaen Magan  
Owner  
559-970-9432  
kurt@westexp.com

Pathogen Class: Class B

Sewage Sludge or Biosolids Pathogen Reduction Options:

- Class B-Alternative 2 PSRP 3: Anaerobic Digestion

Sewage Sludge or Biosolids Vector Attraction Reduction Options:

- Option 1 - Volatile Solids Reduction
- Option 10 - Sewage Sludge Timely Incorporation into Land

Did the facility land apply bulk sewage sludge when one or more pollutants in the sewage sludge exceeded 90 percent or more of any of the cumulative pollutant loading rates in Table 2 of 40 CFR 503.13?

YES  NO  UNKNOWN

**INSTRUCTIONS:** Pollutants, pathogen densities, and vector attraction reduction must be monitored when sewage sludge or biosolids are applied to the land. Please use the following section to report monitoring data for the land application conducted by you or your facility in the reporting period for this SSUID. These monitoring data should be representative of the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID (40 CFR 503.8(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_18](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_18))). All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis. EPA will be using these data to demonstrate compliance with EPA's land application requirements (40 CFR 503, Subpart B).

#### Compliance Monitoring Periods

**INSTRUCTIONS:** Please use the table below to identify the start date and end date for each compliance monitoring period. The number of compliance monitoring periods reported will correspond to the required frequency of monitoring (monthly, quarterly, semi-annually, or annually). For example, if monthly monitoring is required, you should report 12 compliance monitoring periods. The required frequency is determined by the number of metric tons (dry weight basis) of sewage sludge or biosolids land applied in the reporting period for this SSUID (40 CFR 503.16 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_116](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_116))).

Compliance Monitoring Event No. 1

Compliance Monitoring Period Start Date: 01/01/2018

Compliance Monitoring Period End Date: 02/28/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	14	
Cadmium	=	3.9	
Copper	=	510	
Lead	=	14	
Mercury	=	1	
Molybdenum	=	16	
Nickel	=	39	
Selenium	<	3.3	
Zinc	=	620	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	11	
Cadmium	J (Below RL but Above MDL)	3	
Copper	=	410	
Lead	=	11	
Mercury	=	0.8	
Nickel	=	35	
Selenium	<	3.3	
Zinc	=	560	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	61000	



Compliance Monitoring Event No. 2

Compliance Monitoring Period Start Date: 03/01/2018

Compliance Monitoring Period End Date: 04/30/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

 YES  NO**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	17	
Cadmium	J (Below RL but Above MDL)	2.3	
Copper	=	500	
Lead	=	26	
Mercury	=	1.3	
Molybdenum	=	17	
Nickel	=	36	
Selenium	<	3.1	
Zinc	=	630	

**Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	13	
Cadmium	J (Below RL but Above MDL)	2	
Copper	=	400	
Lead	=	14	
Mercury	=	0.87	
Nickel	=	32	
Selenium	<	3.1	
Zinc	=	540	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	59000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	22	
Cadmium	=	1.7	
Copper	=	500	
Lead	=	14	
Mercury	=	2	
Molybdenum	=	18	
Nickel	=	40	
Selenium	<	3.2	
Zinc	=	670	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	16	
Cadmium	J (Below RL but Above MDL)	1.8	
Copper	=	470	
Lead	=	13	
Mercury	=	1.2	
Nickel	=	34	
Selenium	<	3.2	
Zinc	=	620	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	56000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	23	
Cadmium	J (Below RL but Above MDL)	1.9	
Copper	=	560	
Lead	=	12	
Mercury	=	0.84	
Molybdenum	=	21	
Nickel	=	47	
Selenium	<	3.1	
Zinc	=	730	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	21	
Cadmium	J (Below RL but Above MDL)	1.7	
Copper	=	480	
Lead	=	11	
Mercury	=	0.72	
Nickel	=	38	
Selenium	<	3.1	
Zinc	=	640	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	56000	

Compliance Monitoring Event No. 5

Compliance Monitoring Period Start Date: 09/01/2018

Compliance Monitoring Period End Date: 10/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

 YES  NO**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	29	
Cadmium	=	4.4	
Copper	=	610	
Lead	=	19	
Mercury	=	1.2	
Molybdenum	=	22	
Nickel	=	47	
Selenium	<	3.1	
Zinc	=	950	

**Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	22	
Cadmium	J (Below RL but Above MDL)	2.3	
Copper	=	510	
Lead	=	13	
Mercury	=	0.97	
Nickel	=	36	
Selenium	<	3.1	
Zinc	=	710	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	54000	

Compliance Monitoring Event No. 6

Compliance Monitoring Period Start Date: 11/01/2018

Compliance Monitoring Period End Date: 12/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

 YES  NO**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	23	
Cadmium	J (Below RL but Above MDL)	1.7	
Copper	=	500	
Lead	=	17	
Mercury	=	1.2	
Molybdenum	=	22	
Nickel	=	50	
Selenium	<	3.3	
Zinc	=	680	

**Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	18	
Cadmium	J (Below RL but Above MDL)	1.5	
Copper	=	450	
Lead	=	12	
Mercury	=	0.81	
Nickel	=	34	
Selenium	<	3.3	
Zinc	=	620	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	57000	

ID: 004

Amount: 840.2

Management Practice Detail: Distribution and Marketing - CompostBulk or Bag/Container: BulkHandler, Preparer, or Applier Type: Off-Site Third-Party Preparer

NPDES ID of handler:

Facility Information:  
Synagro – Arizona SoilsContact Information:  
Craig Geyer

5615 S. 91st Avenue  
Tolleson, CA 85353

Regional Manager  
623-936-6328  
CGeyer@SYNAGRO.com

**Pathogen Class:** Class A EQ

**Sewage Sludge or Biosolids Pathogen Reduction Options:**

- Class A-Alternative 5: PFRP 1: Composting

**Sewage Sludge or Biosolids Vector Attraction Reduction Options:**

- Option 1 - Volatile Solids Reduction
- Option 5 - Aerobic Processing (Thermophilic Aerobic Digestion/Composting)

**Did the facility land apply bulk sewage sludge when one or more pollutants in the sewage sludge exceeded 90 percent or more of any of the cumulative pollutant loading rates in Table 2 of 40 CFR 503.13?**

YES  NO  UNKNOWN

## Monitoring Data

**INSTRUCTIONS:** Pollutants, pathogen densities, and vector attraction reduction must be monitored when sewage sludge or biosolids are applied to the land. Please use the following section to report monitoring data for the land application conducted by you or your facility in the reporting period for this SSUID. These monitoring data should be representative of the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID (40 CFR 503.8(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_18](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_18))). All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis. EPA will be using these data to demonstrate compliance with EPA's land application requirements (40 CFR 503, Subpart B).

### Compliance Monitoring Periods

**INSTRUCTIONS:** Please use the table below to identify the start date and end date for each compliance monitoring period. The number of compliance monitoring periods reported will correspond to the required frequency of monitoring (monthly, quarterly, semi-annually, or annually). For example, if monthly monitoring is required, you should report 12 compliance monitoring periods. The required frequency is determined by the number of metric tons (dry weight basis) of sewage sludge or biosolids land applied in the reporting period for this SSUID (40 CFR 503.16 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_116](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_116))).

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	4.5	
Cadmium	=	1.9	
Copper	=	400	
Lead	=	15	
Mercury	=	1.2	
Molybdenum	=	12	
Nickel	=	17	
Selenium	=	3.8	
Zinc	=	730	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	270	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	55	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	3.8	
Cadmium	=	1.44	
Copper	=	305	
Lead	=	11.1	
Mercury	=	1.2	
Nickel	=	14	
Selenium	=	3.5	
Zinc	=	540	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	30650	



Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.7	
Cadmium	=	1.9	
Copper	=	530	
Lead	=	31	
Mercury	=	1.7	
Molybdenum	=	17	
Nickel	=	23	
Selenium	=	8.1	
Zinc	=	920	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	36	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	57	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.4	
Cadmium	=	1.9	
Copper	=	490	
Lead	=	23	
Mercury	=	1.5	
Nickel	=	22	
Selenium	=	7.1	
Zinc	=	890	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	39950	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.1	
Cadmium	=	1.8	
Copper	=	440	
Lead	=	15	
Mercury	=	1.3	
Molybdenum	=	15	
Nickel	=	20	
Selenium	=	6.6	
Zinc	=	840	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	28	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	56	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	3.6	
Cadmium	=	1.24	
Copper	=	295	
Lead	=	10.9	
Mercury	=	1.15	
Nickel	=	14.7	
Selenium	=	4.4	
Zinc	=	550	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	39850	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.2	
Cadmium	=	2	
Copper	=	510	
Lead	=	17	
Mercury	=	1.8	
Molybdenum	=	16	
Nickel	=	26	
Selenium	=	7.2	
Zinc	=	870	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	30	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	54	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.2	
Cadmium	=	2	
Copper	=	480	
Lead	=	17	
Mercury	=	1.7	
Nickel	=	25	
Selenium	=	6.8	
Zinc	=	840	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	36900	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	7.9	
Cadmium	=	3.3	
Copper	=	540	
Lead	=	26	
Mercury	=	1.2	
Molybdenum	=	17	
Nickel	=	26	
Selenium	=	6.5	
Zinc	=	850	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	33	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	53	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.4	
Cadmium	=	2.3	
Copper	=	370	
Lead	=	16.6	
Mercury	=	1.2	
Nickel	=	17.8	
Selenium	=	4.4	
Zinc	=	590	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	46200	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	8.1	
Cadmium	=	3.7	
Copper	=	510	
Lead	=	19	
Mercury	=	1.4	
Molybdenum	=	17	
Nickel	=	26	
Selenium	=	7.3	
Zinc	=	880	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	33	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	52	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	7.3	
Cadmium	=	2.9	
Copper	=	510	
Lead	=	19	
Mercury	=	1.4	
Nickel	=	26	
Selenium	=	6.5	
Zinc	=	840	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	36100	

Sludge Management - Surface Disposal

Sludge Management - Incineration

Sludge Management - Other Management Practice

ID: 001

Amount: 14608.4

Management Practice Detail: Other

Other Management Practice Detail Description: EPA-permitted Class I Sludge Management facility - composting

Handler, Preparer, or Applier Type: Off-Site Third-Party Preparer

NPDES ID of handler:

**Facility Information:**

Synagro - Nursery Products  
PO Box 1439  
Helendale, CA 92342

**Contact Information:**

Venny Vasquez  
Site Manager  
760-265-5210  
vvasquez@SYNAGRO.com

Pathogen Class: Class A EQ

Do you have any deficiencies to report for this SSUID?  YES  NO  UNKNOWN

ID: 002

Amount: 5816.6

Management Practice Detail: Other

Other Management Practice Detail Description: EPA-permitted Class I Sludge Management Facility - composting

Handler, Preparer, or Applier Type: Off-Site Third-Party Preparer

NPDES ID of handler:

**Facility Information:**

Liberty Compost  
12421 Holloway Rd.  
Lost Hills, CA 93249

**Contact Information:**

Patrick McCarthy  
Site Manager  
661-797-2914  
patrickmccarthy@mccarthyfarms.com

Pathogen Class: Class A EQ

Do you have any deficiencies to report for this SSUID?  YES  NO  UNKNOWN

Additional Information

Please enter any additional information that you would like to provide in the comment box below.

OCSD is attaching an abbreviated version of the electronic version of our annual report because file size is much larger than your 3MB limit. The original file is available at [www.ocsd.com/503](http://www.ocsd.com/503). We are also providing an electronic spreadsheet of our priority pollutants report. Please contact Deirdre Bingman if you have any questions: [dbingman@ocsd.com](mailto:dbingman@ocsd.com) 714.593.7459.

**Additional Attachments**

Name	Created Date	Size
2018_OCSD_Annual_Biosolids_Compliance_Report_503_compressed.pdf	01/29/2019 11:58 AM	1010.49 KB
Combined01-12-2018_P1_land_app_2mo_rptng_results.xlsx	01/29/2019 11:59 AM	332.04 KB

Certification Information

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 gathered and evaluated 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 have no personal knowledge that the information submitted is other than 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. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

**Certified By:** Ronald J. Coss (CAL110604)

**Certified On:** 01/29/2019 1:41 PM


**NPDES ID:** CAL120604

**Facility Status:** Active

**Facility Name:** ORANGE COUNTY SD #2

10844 ELLIS AVENUE FOUNTAIN VALLEY, CA 92708-7018

# View Annual Report

	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 <b>BIOSOLIDS ANNUAL REPORT</b>	<b>FORM</b> Approved OMB No. 2040-0004
<p>EPA's sewage sludge regulations require certain publicly owned treatment works (POTWs) and Class I sewage sludge management facilities to submit to a Sewage Sludge (Biosolids) Annual Report (see 40 CFR 503.18 (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_118">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_118</a>), 503.28 (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_128">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_128</a>), 503.48 (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_148">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_148</a>)). Facilities that must submit a Sewage Sludge (Biosolids) Annual Report include POTWs with a design flow rate equal to or greater than one million gallons per day, POTWs that serve 10,000 people or more, Class I Sludge Management Facilities (as defined by 40 CFR 503.9 (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_19">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_19</a>)), and facilities otherwise required to file this report (e.g., permit condition, enforcement action, state law). This is the electronic form for Sewage Sludge (Biosolids) Annual Report filers to use if they are located in one of the <a href="https://www.epa.gov/npdes/npdes-state-program-information">states, tribes, or territories</a> (<a href="https://www.epa.gov/npdes/npdes-state-program-information">https://www.epa.gov/npdes/npdes-state-program-information</a>) where EPA administers the Federal biosolids program.</p> <p>For the purposes of this form, the term 'sewage sludge' (<a href="https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_19">https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&amp;rgn=div5#se40.32.503_19</a>) also refers to the material that is commonly referred to as 'biosolids'. EPA does not have a regulatory definition for biosolids but this material is commonly referred to as sewage sludge that is placed on, or applied to the land to use the beneficial properties of the material as a soil amendment, conditioner, or fertilizer. EPA's use of the term 'biosolids' in this form is to confirm that information about beneficially used sewage sludge (a.k.a. biosolids) should be reported on this form.</p> <p>Please note that EPA may contact you after you submit this report for more information regarding your sewage sludge management program.</p>		
Program Information		
<p><b>Please select at least one of the following options pertaining to your obligation to submit a Sewage Sludge (Biosolids) Annual Report in compliance with 40 CFR part 503. The facility is:</b></p> <ul style="list-style-type: none"> <li>• a Class I Sludge Management Facility as defined in 40 CFR 503.9</li> <li>• a POTW with a design flow rate equal to or greater than one million gallons per day</li> <li>• a POTW that serves 10,000 people or more</li> </ul> <p><b>In the reporting period, did you manage your sewage sludge or biosolids using any of the following management practices: land application, surface disposal, or incineration?</b> <input checked="" type="checkbox"/> YES</p> <p><input type="checkbox"/> NO</p> <p><b>If your facility is a POTW, please provide the estimated total amount of sewage sludge produced at your facility for the reporting period (in dry metric tons). If your facility is not a POTW, please provide the estimated total amount of biosolids produced at your facility for the reporting period (in dry metric tons).</b></p> <p><u>31805.4</u></p> <p><b>Reporting Period Start Date:</b> <u>01/01/2018</u> <span style="float: right;"><b>Reporting Period End Date:</b> <u>12/31/2018</u></span></p>		
Treatment Processes		
<p><b>Processes to Significantly Reduce Pathogens (PSRP):</b>  <u>Anaerobic Digestion</u></p> <p><b>Processes to Further Reduce Pathogens (PFRP):</b></p> <p><b>Physical Treatment Options:</b>  <u>Preliminary Operations (e.g., sludge grinding, dewatering, blending)</u>  <u>Thickening (e.g., gravity and/or flotation thickening, centrifugation, belt filter press, vacuum filter)</u></p> <p><b>Other Processes to Manage Sewage Sludge:</b>  <u>Methane or Biogas Capture and Recovery</u></p>		



Analytical Methods

Did you use any analytical methods to analyze sewage sludge in the reporting period?  YES  NO

**Analytical Methods**

- EPA Method 6010 - Arsenic (ICP-OES)
- EPA Method 6010 - Cadmium (ICP-OES)
- EPA Method 6010 - Chromium (ICP-OES)
- EPA Method 6010 - Copper (ICP-OES)
- EPA Method 6010 - Lead (ICP-OES)
- EPA Method 7471 - Mercury (CVAA)
- EPA Method 6010 - Molybdenum (ICP-OES)
- EPA Method 6010 - Nickel (ICP-OES)
- EPA Method 6010 - Selenium (ICP-OES)
- EPA Method 6010 - Zinc (ICP-OES)
- EPA Method 6010 - Beryllium (ICP-OES)
- EPA Method 351.2 - Total Kjeldahl Nitrogen
- Standard Method 4500-NH<sub>3</sub> - Ammonia Nitrogen
- Standard Method 2540 - Total Solids
- Standard Method 2540 - Volatile Solids
- EPA Method 1311 - Toxicity Characteristic Leaching Procedure
- EPA Method 9045 - pH (> 7% solids)

**Other Analytical Methods**

- Other Nitrate Nitrogen Analytical Method

**Other Analytical Methods Text Area:**

EPA 300.0

Sludge Management - Land Application

ID: 001

Amount: 19021.4

Management Practice Detail: Agricultural Land Application

Bulk or Bag/Container: Bulk

Handler, Preparer, or Applier Type: Off-Site Third-Party Handler or Applier

NPDES ID of handler:

Facility Information:

Tule Ranch / Ag-Tech  
4324 E. Ashlan Ave.  
Fresno, CA 93726

Contact Information:

Shaen Magan  
Owner  
559-970-9432  
kurt@westexp.com

Pathogen Class: Class B

Sewage Sludge or Biosolids Pathogen Reduction Options:

- Class B-Alternative 2 PSRP 3: Anaerobic Digestion

Sewage Sludge or Biosolids Vector Attraction Reduction Options:

- Option 1 - Volatile Solids Reduction
- Option 10 - Sewage Sludge Timely Incorporation into Land

Did the facility land apply bulk sewage sludge when one or more pollutants in the sewage sludge exceeded 90 percent or more of any of the cumulative pollutant loading rates in Table 2 of 40 CFR 503.13?

YES  NO  UNKNOWN

Monitoring Data

**INSTRUCTIONS:** Pollutants, pathogen densities, and vector attraction reduction must be monitored when sewage sludge or biosolids are applied to the land. Please use the following section to report monitoring data for the land application conducted by you or your facility in the reporting period for this SSUID. These monitoring data should be representative of the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID (40 CFR 503.8(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_18](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_18))). All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis. EPA will be using these data to demonstrate compliance with EPA's land application requirements (40 CFR 503, Subpart B).

**Compliance Monitoring Periods**

**INSTRUCTIONS:** Please use the table below to identify the start date and end date for each compliance monitoring period. The number of compliance monitoring periods reported will correspond to the required frequency of monitoring (monthly, quarterly, semi-annually, or annually). For example, if monthly monitoring is required, you should report 12 compliance monitoring periods. The required frequency is determined by the number of metric tons (dry weight basis) of sewage sludge or biosolids land applied in the reporting period for this SSUID (40 CFR 503.16 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_116](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_116))).

Compliance Monitoring Event No. 1 Compliance Monitoring Period Start Date: 01/01/2018 Compliance Monitoring Period End Date: 01/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	14	
Cadmium	=	5.6	
Copper	=	430	
Lead	=	13	
Mercury	=	0.84	
Molybdenum	=	14	
Nickel	=	32	
Selenium	<	2.7	
Zinc	=	680	

**Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	13	
Cadmium	=	5.4	
Copper	=	390	
Lead	=	12	
Mercury	=	0.81	
Nickel	=	31	
Selenium	<	2.7	
Zinc	=	650	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	52000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	13	
Cadmium	=	7.7	
Copper	=	510	
Lead	=	16	
Mercury	=	0.96	
Molybdenum	=	16	
Nickel	=	38	
Selenium	<	2.9	
Zinc	=	770	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	13	
Cadmium	=	7.3	
Copper	=	510	
Lead	=	16	
Mercury	=	0.79	
Nickel	=	38	
Selenium	<	2.9	
Zinc	=	750	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	56000	

Compliance Monitoring Event No. 3

Compliance Monitoring Period Start Date: 03/01/2018

Compliance Monitoring Period End Date: 03/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

 YES  NO**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	15	
Cadmium	=	4.4	
Copper	=	440	
Lead	=	10	
Mercury	=	0.77	
Molybdenum	=	16	
Nickel	=	37	
Selenium	<	2.7	
Zinc	=	650	

**Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	12	
Cadmium	=	4.1	
Copper	=	380	
Lead	=	10	
Mercury	=	0.74	
Nickel	=	33	
Selenium	<	2.7	
Zinc	=	590	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	48000	

Compliance Monitoring Event No. 4

Compliance Monitoring Period Start Date: 04/01/2018

Compliance Monitoring Period End Date: 04/30/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

 YES  NO**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	17	
Cadmium	=	3.6	
Copper	=	540	
Lead	=	16	
Mercury	=	0.97	
Molybdenum	=	19	
Nickel	=	40	
Selenium	<	2.8	
Zinc	=	780	

**Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	16	
Cadmium	=	3.5	
Copper	=	520	
Lead	=	16	
Mercury	=	0.92	
Nickel	=	39	
Selenium	<	2.8	
Zinc	=	770	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	50000	

Compliance Monitoring Event No. 5

Compliance Monitoring Period Start Date: 05/01/2018

Compliance Monitoring Period End Date: 05/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

 YES  NO**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	15	
Cadmium	=	2.6	
Copper	=	500	
Lead	=	15	
Mercury	=	0.78	
Molybdenum	=	17	
Nickel	=	33	
Selenium	<	2.7	
Zinc	=	710	

**Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	15	
Cadmium	=	2.5	
Copper	=	500	
Lead	=	15	
Mercury	=	0.77	
Nickel	=	33	
Selenium	<	2.7	
Zinc	=	680	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	49000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	21	
Cadmium	=	2.9	
Copper	=	490	
Lead	=	15	
Mercury	=	0.98	
Molybdenum	=	21	
Nickel	=	39	
Selenium	<	2.8	
Zinc	=	760	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	J (Below RL but Above MDL)	20	
Cadmium	=	2.6	
Copper	=	440	
Lead	=	13	
Mercury	=	0.92	
Nickel	=	34	
Selenium	<	2.8	
Zinc	=	650	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	49000	



Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	20	
Cadmium	=	2.9	
Copper	=	510	
Lead	=	14	
Mercury	=	0.92	
Molybdenum	=	19	
Nickel	=	35	
Selenium	<	2.6	
Zinc	=	730	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	20	
Cadmium	=	2.8	
Copper	=	500	
Lead	=	14	
Mercury	=	0.76	
Nickel	=	33	
Selenium	<	2.6	
Zinc	=	700	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	46000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	24	
Cadmium	=	4.7	
Copper	=	560	
Lead	=	12	
Mercury	=	1.1	
Molybdenum	=	20	
Nickel	=	46	
Selenium	<	2.7	
Zinc	=	810	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	23	
Cadmium	=	4.4	
Copper	=	550	
Lead	=	12	
Mercury	=	0.96	
Nickel	=	44	
Selenium	<	2.7	
Zinc	=	790	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	49000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	21	
Cadmium	=	3.2	
Copper	=	580	
Lead	=	15	
Mercury	=	1.2	
Molybdenum	=	18	
Nickel	=	41	
Selenium	<	2.6	
Zinc	=	780	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	20	
Cadmium	=	3.1	
Copper	=	570	
Lead	=	14	
Mercury	=	1	
Nickel	=	41	
Selenium	<	2.6	
Zinc	=	770	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	48000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	24	
Cadmium	=	3.7	
Copper	=	550	
Lead	=	16	
Mercury	=	0.82	
Molybdenum	=	19	
Nickel	=	41	
Selenium	<	2.7	
Zinc	=	810	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	24	
Cadmium	J (Below RL but Above MDL)	2.7	
Copper	=	520	
Lead	=	15	
Mercury	=	0.81	
Nickel	=	39	
Selenium	<	2.7	
Zinc	=	760	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	51000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	24	
Cadmium	=	5.3	
Copper	=	530	
Lead	=	13	
Mercury	=	1.3	
Molybdenum	=	18	
Nickel	=	39	
Selenium	<	2.8	
Zinc	=	810	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	22	
Cadmium	=	4.7	
Copper	=	510	
Lead	=	13	
Mercury	=	1	
Nickel	=	39	
Selenium	<	2.7	
Zinc	=	770	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	47000	

Compliance Monitoring Event No. 12

Compliance Monitoring Period Start Date: 12/01/2018

Compliance Monitoring Period End Date: 12/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

 YES  NO**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	18	
Cadmium	=	4.1	
Copper	=	470	
Lead	=	13	
Mercury	=	0.72	
Molybdenum	=	16	
Nickel	=	33	
Selenium	<	2.9	
Zinc	=	700	

**Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	18	
Cadmium	=	4.1	
Copper	=	440	
Lead	=	13	
Mercury	=	0.65	
Nickel	=	33	
Selenium	<	2.9	
Zinc	=	690	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	58000	

ID: 002

Amount: 2788.2

Management Practice Detail: Distribution and Marketing - CompostBulk or Bag/Container: BulkHandler, Preparer, or Applier Type: Off-Site Third-Party Preparer

NPDES ID of handler:

Facility Information:  
Synagro – Arizona SoilsContact Information:  
Craig Geyer

5615 S. 91st Avenue  
Tolleson, CA 85353

Area Manager  
623-936-6328  
CGeyer@SYNAGRO.com

**Pathogen Class:** Class A EQ

**Sewage Sludge or Biosolids Pathogen Reduction Options:**

- Class A-Alternative 5: PFRP 1: Composting

**Sewage Sludge or Biosolids Vector Attraction Reduction Options:**

- Option 1 - Volatile Solids Reduction
- Option 5 - Aerobic Processing (Thermophilic Aerobic Digestion/Composting)

**Did the facility land apply bulk sewage sludge when one or more pollutants in the sewage sludge exceeded 90 percent or more of any of the cumulative pollutant loading rates in Table 2 of 40 CFR 503.13?**

YES  NO  UNKNOWN

## Monitoring Data

**INSTRUCTIONS:** Pollutants, pathogen densities, and vector attraction reduction must be monitored when sewage sludge or biosolids are applied to the land. Please use the following section to report monitoring data for the land application conducted by you or your facility in the reporting period for this SSUID. These monitoring data should be representative of the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID (40 CFR 503.8(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_18](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_18))). All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis. EPA will be using these data to demonstrate compliance with EPA's land application requirements (40 CFR 503, Subpart B).

### Compliance Monitoring Periods

**INSTRUCTIONS:** Please use the table below to identify the start date and end date for each compliance monitoring period. The number of compliance monitoring periods reported will correspond to the required frequency of monitoring (monthly, quarterly, semi-annually, or annually). For example, if monthly monitoring is required, you should report 12 compliance monitoring periods. The required frequency is determined by the number of metric tons (dry weight basis) of sewage sludge or biosolids land applied in the reporting period for this SSUID (40 CFR 503.16 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_116](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_116))).



Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	4.5	
Cadmium	=	1.9	
Copper	=	400	
Lead	=	15	
Mercury	=	1.1	
Molybdenum	=	12	
Nickel	=	17	
Selenium	=	3.8	
Zinc	=	730	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	270	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	63	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	4.5	
Cadmium	=	1.9	
Copper	=	400	
Lead	=	15	
Mercury	=	1.1	
Nickel	=	17	
Selenium	=	3.8	
Zinc	=	730	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	31800	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	3.1	
Cadmium	=	0.98	
Copper	=	210	
Lead	=	7.1	
Mercury	=	1.2	
Molybdenum	=	7.3	
Nickel	=	10	
Selenium	=	3.1	
Zinc	=	350	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	87	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	48	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	3.1	
Cadmium	=	0.98	
Copper	=	210	
Lead	=	7.1	
Mercury	=	1.2	
Nickel	=	10	
Selenium	=	3.1	
Zinc	=	350	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	29500	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.1	
Cadmium	=	1.8	
Copper	=	450	
Lead	=	31	
Mercury	=	1.3	
Molybdenum	=	17	
Nickel	=	21	
Selenium	=	6	
Zinc	=	860	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	31	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	64	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.1	
Cadmium	=	1.8	
Copper	=	450	
Lead	=	31	
Mercury	=	1.3	
Nickel	=	21	
Selenium	=	6	
Zinc	=	860	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	39000	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.7	
Cadmium	=	1.9	
Copper	=	530	
Lead	=	14	
Mercury	=	1.7	
Molybdenum	=	16	
Nickel	=	23	
Selenium	=	8.1	
Zinc	=	920	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	36	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	56	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.7	
Cadmium	=	1.9	
Copper	=	530	
Lead	=	14	
Mercury	=	1.7	
Nickel	=	23	
Selenium	=	8.1	
Zinc	=	920	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	40900	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.1	
Cadmium	=	1.8	
Copper	=	440	
Lead	=	15	
Mercury	=	0.99	
Molybdenum	=	15	
Nickel	=	20	
Selenium	=	6.6	
Zinc	=	840	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	28	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	56	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	5.1	
Cadmium	=	1.8	
Copper	=	440	
Lead	=	15	
Mercury	=	0.99	
Nickel	=	20	
Selenium	=	6.6	
Zinc	=	840	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	41800	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2	
Cadmium	=	0.67	
Copper	=	150	
Lead	=	6.8	
Mercury	=	1.3	
Molybdenum	=	4	
Nickel	=	9.4	
Selenium	=	2.1	
Zinc	=	260	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	28	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	56	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2	
Cadmium	=	0.67	
Copper	=	150	
Lead	=	6.8	
Mercury	=	1.3	
Nickel	=	9.4	
Selenium	=	2.1	
Zinc	=	260	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	37900	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.1	
Cadmium	=	2	
Copper	=	450	
Lead	=	16	
Mercury	=	1.8	
Molybdenum	=	16	
Nickel	=	24	
Selenium	=	7.2	
Zinc	=	810	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	29	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	58	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.1	
Cadmium	=	2	
Copper	=	450	
Lead	=	16	
Mercury	=	1.8	
Nickel	=	24	
Selenium	=	7.2	
Zinc	=	810	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	40400	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.2	
Cadmium	=	1.9	
Copper	=	510	
Lead	=	17	
Mercury	=	1.5	
Molybdenum	=	16	
Nickel	=	26	
Selenium	=	6.4	
Zinc	=	870	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	30	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	47	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.2	
Cadmium	=	1.9	
Copper	=	510	
Lead	=	17	
Mercury	=	1.5	
Nickel	=	26	
Selenium	=	6.4	
Zinc	=	870	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	33400	



Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	7.9	
Cadmium	=	3.3	
Copper	=	540	
Lead	=	26	
Mercury	=	1.1	
Molybdenum	=	17	
Nickel	=	26	
Selenium	=	6.5	
Zinc	=	850	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	33	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	55	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	7.9	
Cadmium	=	3.3	
Copper	=	540	
Lead	=	26	
Mercury	=	1.1	
Nickel	=	26	
Selenium	=	6.5	
Zinc	=	850	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	46300	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	4.9	
Cadmium	=	1.2	
Copper	=	200	
Lead	=	7.1	
Mercury	=	1.2	
Molybdenum	=	7.3	
Nickel	=	9.5	
Selenium	=	2.3	
Zinc	=	330	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	30	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	53	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	4.9	
Cadmium	=	1.2	
Copper	=	200	
Lead	=	7.1	
Mercury	=	1.2	
Nickel	=	9.5	
Selenium	=	2.3	
Zinc	=	330	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	46100	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.4	
Cadmium	=	2	
Copper	=	510	
Lead	=	19	
Mercury	=	1.3	
Molybdenum	=	17	
Nickel	=	26	
Selenium	=	7.3	
Zinc	=	880	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	29	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	56	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	6.4	
Cadmium	=	2	
Copper	=	510	
Lead	=	19	
Mercury	=	1.3	
Nickel	=	26	
Selenium	=	7.3	
Zinc	=	880	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	38600	

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

#### Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	8.1	
Cadmium	=	3.7	
Copper	=	510	
Lead	=	18	
Mercury	=	1.4	
Molybdenum	=	15	
Nickel	=	26	
Selenium	=	5.7	
Zinc	=	800	

#### Pathogen And Vector Attraction Reduction

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	<	33	
Salmonella	<	1	

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	52	

#### Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	8.1	
Cadmium	=	3.7	
Copper	=	510	
Lead	=	18	
Mercury	=	1.4	
Nickel	=	26	
Selenium	=	5.7	
Zinc	=	800	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	33600	

Sludge Management - Surface Disposal

Sludge Management - Incineration

Sludge Management - Other Management Practice

ID: 003

Amount: 4688.2

Management Practice Detail: Other

Other Management Practice Detail Description: EPA-permitted Class I Sludge Management facility - composting

Handler, Preparer, or Applier Type: Off-Site Third-Party Preparer

NPDES ID of handler:

Facility Information:

Synagro - Nursery Products  
PO Box 1439  
Helendale, CA 92342

Contact Information:

Venny Vasquez  
Site Manager  
760-265-5210  
vvasquez@SYNAGRO.com

Pathogen Class: Class A EQ

Do you have any deficiencies to report for this SSUID?  YES  NO  UNKNOWN

ID: 004

Amount: 2824.3

Management Practice Detail: Other

Other Management Practice Detail Description: EPA-permitted Class I Sludge Management facility - composting

Handler, Preparer, or Applier Type: Off-Site Third-Party Preparer

NPDES ID of handler:

Facility Information:

Liberty Compost  
12421 Holloway Rd.  
Lost Hills, CA 93249

Contact Information:

Patrick McCarthy  
Site Manager  
661-797-2914  
patrickmccarthy@mccarthyfarms.com

Pathogen Class: Class A EQ

Do you have any deficiencies to report for this SSUID?  YES  NO  UNKNOWN

ID: 005

Amount: 2483.3

Management Practice Detail: Other

Other Management Practice Detail Description: EPA-permitted Class I Sludge Management facility - composting

Handler, Preparer, or Applier Type: Off-Site Third-Party Preparer

NPDES ID of handler:

Facility Information:

Inland Empire Regional Composting Authority  
12645 6th Street  
Rancho Cucamonga, CA 91739

Contact Information:

Jeff Ziegenbein  
Facility Manager  
909-993-1981  
jziegenbein@ieua.org

Pathogen Class: Class A EQ

Do you have any deficiencies to report for this SSUID?  YES  NO  UNKNOWN

Additional Information

Please enter any additional information that you would like to provide in the comment box below.

OCSD is attaching an abbreviated version of the electronic version of our annual report because file size is much larger than your 3MB limit. The original file is available at [www.ocsd.com/503](http://www.ocsd.com/503). We are also providing the certified monthly compliance reports that contain the data that is reported into your database. Please contact Deirdre Bingman if you have any questions: [dbingman@ocsd.com](mailto:dbingman@ocsd.com) 714.593.7459.

Additional Attachments

Name	Created Date	Size
2018_OCSD_Annual_Biosolids_Compliance_Report_503_abbreviated.pdf	01/29/2019 12:03 PM	1010.49 KB

Certification Information

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 gathered and evaluated 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 have no personal knowledge that the information submitted is other than 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. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

**Certified By:** Ronald J. Coss (CAL110604)

**Certified On:** 01/29/2019 1:42 PM

## **APPENDIX E**

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**ARIZONA**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
 AZPDES Individual Permits Unit  
 1110 W Washington Street  
 Phoenix, Arizona 85007  
 (602) 771-4689 (voicemail) (602) 771-4505 (fax)  
 Email to: biosolids@azdeq.gov

<b>BIOSOLIDS OR SEWAGE SLUDGE ANNUAL REPORT FORM</b>	
<b>1. Program Information:</b> All preparers (Generators) and Land Applicators Must complete the following.	
Reporting Start Date: 1/1/2018	Reporting End Date: 12/31/2018
Date: 2/1/2018	AZPDES Permit # ( if applicable ): Click here to enter text.
Company name ( Preparer / Applicator): Orange County Sanitation District, Plant No. 1 and Plant No. 2	
Contact Name: Ross Coss	Title: Laboratory, Monitoring and Compliance Manager
Address: 10844 Ellis Ave., Fountain Valley, CA 92708	E-mail: rcoss@ocsd.com
Phone: 714-593-7508	
Please select one of the following options pertaining to your obligation to submit a Biosolids Annual Report. My facility is a:	
<input checked="" type="checkbox"/> POTW with a design flow equal to or greater than 1 MGD Per Day <input checked="" type="checkbox"/> POTW that serves 10,000 people or more <input checked="" type="checkbox"/> Class I Sludge Management Facility as defined by 40 CFR 503.9 <input type="checkbox"/> Biosolids Applicator (Complete Section 5 only) <input type="checkbox"/> Other Click here to enter text.	
What is the estimated total of volume of biosolids or sewage sludge generated at your facility (in dry metric tons)?	
56,010	
Were all biosolids removed from your facility sent to a landfill for disposal? No	
If yes, provide the name and address of the landfill(s). Click here to enter text.	
<i>If all biosolids or sewage sludge was sent to a landfill for disposal, you do not need to complete the remainder of this form, as it is only applicable to facilities preparing biosolids or sewage sludge for land application.</i>	
Certification: I certify, under penalty of law, that the information and descriptions, have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.	
Signature:	Date: 29 Jan 2019
Title: <i>Laboratory, monitoring, &amp; Compliance Manager</i>	

# BIOSOLIDS SEWAGE SLUDGE ANNUAL REPORT

## 2. Generator/Preparers - Biosolids Storage and Treatment Processes

2.1 Please check the box next to the following biosolids or sewage sludge storage practices and treatment processes used on the sewage sludge or biosolids generated or produced at your facility during the reporting period.

### Storage Practices

- Biosolids are stored in lined lagoons or impoundments
- Biosolids stored directly on the ground

### Physical Treatment Processes

- Preliminary Operations (e.g. sludge grinding, degritting, blending)
- Thickening (e.g. gravity floatation, centrifugation, belt filter press, vacuum filter)
- Sludge lagoon

### Pathogen Reduction Operations (PSRP)

- Aerobic Digestion
- Air Drying (or "sludge drying beds")
- Anaerobic Digestion
- Lower Temperature Composting
- Lime Stabilization

### Process to Further Reduce Pathogens (PFRP)

- Higher Temperature Composting
- Heat Drying (e.g. flash dryer, spray dryer, rotary dryer)
- Heat Treatment (Liquid sewage sludge is heated to temp of 356 °F (180 °C) or higher for 30 minutes)
- Thermophilic Aerobic Digestion
- Beta Ray Irradiation
- Gamma Ray Irradiation
- Pasteurization

## BIOSOLIDS SEWAGE SLUDGE ANNUAL REPORT

### 3. Generators/Preparers: Disposition of Biosolids or Sewage Treatment Sludge:

3.1 At the beginning of the year, did you have any biosolids or sewage sludge stored on site or remaining from previous years? Include any amount that is being stored anywhere. No

If yes provide the following information:

	CLASS A Biosolids	Class B Biosolids
Dry Ton Weight	Click here to enter text.	Click here to enter text.
Pathogen Testing	Choose an item.	Not applicable
Pathogen Reduction Method	Choose an item.	Choose an item.
Vector Attraction Reduction Method	Choose an item.	Choose an item.
Storage Locations	Click here to enter text.	Click here to enter text.

3.2 At the end of the year, are any biosolids or sewage sludge stored on site? No

If yes, provide the following information:

	CLASS A Biosolids	Class B Biosolids
Dry Ton Weight	Click here to enter text.	Click here to enter text.
Pathogen Testing	Choose an item.	Not applicable
Pathogen Reduction Method	Choose an item.	Choose an item.
Vector Attraction Reduction Method	Choose an item.	Choose an item.
Storage Locations	Click here to enter text.	Click here to enter text.

3.3 Were biosolids or sewage sludge received from another facility during the year, such as another wastewater treatment plant or another APP permitted facility for further processing? No

If yes provide the following information for each facility. Click the plus sign to create as many tables as needed.

Name of Facility		
Location:		
	CLASS A Biosolids	Class B Biosolids
Dry Ton Weight	Click here to enter text.	Click here to enter text.
Pathogen Testing	Choose an item.	Not applicable
Pathogen Reduction Method	Choose an item.	Choose an item.
Vector Attraction Reduction Method	Choose an item.	Choose an item.
Storage Locations	Click here to enter text.	Click here to enter text.

## BIOSOLIDS SEWAGE SLUDGE ANNUAL REPORT

3.4. Were biosolids removed from your facility for land application? Include all recipients, including haulers, name, phone number, land applicators, composters, drying facilities, EQB bagging facilities, bulk composting, etc.

Name of Facility	Tule Ranch / Ag-Tech	
Management Practice Type:	Agricultural Land application	
Handler or Preparer Type:	Off-Site Third-Party Handler or Preparer	
Management Practice Detail:	Agricultural Land application	
Bag or Bulk Container:	Bulk Container	
	CLASS A Biosolids	Class B Biosolids
Dry Ton Weight	Click here to enter text.	21,960
Pathogen Testing	Choose an item.	Not applicable
Pathogen Reduction Method	Choose an item.	Alternate 5 - anaerobic digestion
Vector Attraction Reduction Method	Choose an item.	Option 1 - mass reduction
Storage Locations	Click here to enter text.	Click here to enter text.

### 4. Generators/Preparers : Biosolids or Sewage Sludge Analytical Methods

Arizona regulations specify that representative samples of sewage sludge that is land applied, placed on a surface disposal site, or fired in a sewage sludge incinerator, must be collected and analyzed. These regulations specify the analytical methods that must be used to analyze samples of sewage sludge.

<i>Parameter</i>	<i>Method Number or Author</i>	<i>Results (if tested)</i>	<i>Comments (required if other)</i>
<b>Pathogens</b>			
Ascaris ova.	No Analytical Method Used	Click here to enter text.	Click here to enter text.
Fecal Coliform	No Analytical Methods Used	Click here to enter text.	Click here to enter text.
Helminth ova.	No Analytical Methods Used	Click here to enter text.	Click here to enter text.
Salmonella sp. Bacteria	No Analytical Methods Used	Click here to enter text.	Click here to enter text.
Total Cultural Viruses	No Analytical Methods Used	Click here to enter text.	Click here to enter text.
<b>Metals</b>			
Arsenic	EPA Method 6010 - Arsenic (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.

## BIOSOLIDS SEWAGE SLUDGE ANNUAL REPORT

Beryllium	Other Beryllium Analytical Method	See attached OCSD Biosolids Management Compliance Report, Appendix C.	EPA Method 6010 - Beryllium
Cadmium	EPA Method 6010 - Cadmium (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Chromium	EPA Method 6010 - Chromium (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A and C.	Click here to enter text.
Copper	EPA Method 6010 - Copper (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Lead	EPA Method 6010 - Lead (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Mercury	EPA Method 7471 - Mercury (CVAA)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Molybdenum	EPA Method 6010 - Molybdenum (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Nickel	EPA Method 6010 - Nickel (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Selenium	EPA Method 6010 - Selenium (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Zinc	EPA Method 6010 - Zinc (ICP-OES)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
<b>Nitrogen Compounds</b>			
Ammonia Nitrogen	Standard Method 4500-NH3 - Ammonia Nitrogen	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Nitrate Nitrogen	Other Nitrate Nitrogen Analytical Method	See attached OCSD Biosolids Management Compliance	EPA 300.0

## BIOSOLIDS SEWAGE SLUDGE ANNUAL REPORT

		Report, appendices A, C, and E.	
Nitrogen	Standard Method 4500-N - Nitrogen	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Organic Nitrogen	Other Organic Nitrogen Analytical Method	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Calculation
Total Kjeldahl Nitrogen	EPA Method 351.2 - Total Kjeldahl Nitrogen	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
<b>Other Analytes</b>			
Fixed Solids	No Analytical Method Used	Click here to enter text.	Click here to enter text.
Paint Filter Test	No Analytical Method Used	Click here to enter text.	Click here to enter text.
pH	EPA Method 9045 - pH (> 7% solids)	See attached OCSD Biosolids Management Compliance Report, appendices A, C, and E.	Click here to enter text.
Specific Oxygen Uptake Rate	Choose an item.	Click here to enter text.	Click here to enter text.
TCLP	EPA Method 1311 - Toxicity Characteristic Leaching Procedure	See attached OCSD Biosolids Management Compliance Report, Appendix C.	Click here to enter text.
Temperature	No Analytical Method Used	See attached OCSD Biosolids Management Compliance Report, Appendix A.	Click here to enter text.
Total Solids	Standard Method 2540 - Total Solids	See attached OCSD Biosolids Management Compliance Report, Appendix A.	Click here to enter text.
Volatile Solids	Standard Method 2540 - Volatile Solids	See attached OCSD Biosolids Management Compliance Report, Appendix A.	Click here to enter text.
No Analytical Methods Used	Choose an item.	Click here to enter text.	Click here to enter text.



**ARIZONA**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
 AZPDES Individual Permits Unit  
 1110 W Washington Street  
 Phoenix, Arizona 85007  
 (602) 771-4689 (voicemail) (602) 771-4505 (fax)  
 Email to: biosolids@azdeq.gov

5. Land Applicators: Specific information to be completed by Land Applicators Only														
Application Site / Location	Field ID	Amount of Biosolids Applied (in dry tons)	Preparer	Pathogen Treatment Method	Vector Attraction Reduction Method	Loading Rate	Nitrogen Conc. (Organic + ammonium)	Type of Crop Grown After Application	Agronomic Rate of Crop Grown	The <u>Cumulative</u> Concentration of Pollutants (kilograms per hectare) in Soil				
<i>Example:</i> ABC Farms, Aztec AZ	1A	350 tons	Aztec WWTP	Class B Alt. 2	Option 9	Tons or Kg/acre		Corn						
1. Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	As=Click here to enter text.	Cd=Click here to enter text.	Cr=Click here to enter text.	Cu=Click here to enter text.	Pb=Click here to enter text.
										Hg=Click here to enter text.	Mo=Click here to enter text.	Ni=Click here to enter text.	Se=Click here to enter text.	Zn=Click here to enter text.
2. Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	As=Click here to enter text.	Cd=Click here to enter text.	Cr=Click here to enter text.	Cu=Click here to enter text.	Pb=Click here to enter text.
										Hg=Click here to enter text.	Mo=Click here to enter text.	Ni=Click here to enter text.	Se=Click here to enter text.	Zn=Click here to enter text.
	Click here									As=Click here to	Cd=Click here to	Cr=Click here to	Cu=Click here to	Pb=Click here to



## BIOSOLIDS SEWAGE SLUDGE ANNUAL REPORT

3. Click here to enter text.	to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	enter text.	enter text.	enter text.	enter text.	enter text.
											Hg=Click here to enter text.	Mo=Click here to enter text.	Ni=Click here to enter text.	Se=Click here to enter text.	Zn=Click here to enter text.
4. Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	As=Click here to enter text.	Cd=Click here to enter text.	Cr=Click here to enter text.	Cu=Click here to enter text.	Pb=Click here to enter text.
											Hg=Click here to enter text.	Mo=Click here to enter text.	Ni=Click here to enter text.	Se=Click here to enter text.	Zn=Click here to enter text.
5. Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	As=Click here to enter text.	Cd=Click here to enter text.	Cr=Click here to enter text.	Cu=Click here to enter text.	Pb=Click here to enter text.
											Hg=Click here to enter text.	Mo=Click here to enter text.	Ni=Click here to enter text.	Se=Click here to enter text.	Zn=



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**The history of OCSD's Biosolids Program is important to understand as we plan for the future. In order to maintain the integrity of this information for future generations, the historical information is maintained in this appendix.**

### **Program History**

- In 1971, OCSD entered into a long-term contract with Goldenwest Fertilizer Co., Inc., a local fertilizer manufacturer, who hauled and composted the sludge off site. OCSD maintained contracts with Goldenwest Fertilizer Co. for several years until the firm lost their land lease for their composting operation in 1979. Contracts with other composting companies were also used during the 1970s.
- In 1978, after notification that their contract with Goldenwest Fertilizer Co. would be ending in 1979, OCSD presented a proposal to the County of Orange to co-dispose sludge with municipal solid waste at Orange County landfills. Following approval by Orange County and the California Regional Water Quality Control Board, Santa Ana Region (CRWQCB): OCSD established an air drying/composting site at Coyote Canyon landfill. OCSD used this site as a sludge-drying operation until 1981 when it was converted to an open-air composting facility. This was done to reduce odors and dry the sludge to the required 50% solids content prior to being blended with municipal solid waste.
- The 50% solids requirement was set by the CRWQCB, by Order No. 79-55. In December 1982, the requirements were modified by Order No. 82-299. The new order reduced the required average solids content to 22.5%. In addition to the solids content requirements, the volume of refuse to sludge incorporated into the landfill was required to be a 10:1 ratio. After the new Order was issued and the treatment plant belt press dewatering system was installed, the air drying process was no longer needed and its operation was discontinued.
- In 1974, OCSD began a cooperative regional sludge management study with the City of Los Angeles, the Los Angeles County Sanitation Districts, the Environmental Protection Agency (EPA), and the CRWQCB. By a joint powers agreement, the Regional Wastewater Solids Management Program' for the Los Angeles/Orange County Metropolitan Area (LA/OMA Project) had a separate staff and budget to develop a long-term solids reuse or disposal plan, including an implementation strategy for the Los Angeles/Orange County metropolitan areas. This extensive, six-year, \$4.0 million study, which covered all aspects of sludge processing and disposal, was completed in 1980. The conclusion was that each of the three entities would carry out its own sludge management program. For OCSD, land-based disposal and beneficial reuse were the study's preferred alternatives.

However, co-combustion and enclosed mechanical in-vessel composting alternatives at OCSD's Reclamation Plant No. 1 were added to OCSD's LA/OMA supplemental study when the recommended composting facilities were evaluated as being difficult to site.

- In 1978 and 1983, OCSD brought activated sludge facilities online at Plant No. 1 and Plant No. 2 respectively, which led to significant improvements of ocean water quality. By 1984, OCSD had replaced centrifuges that dewatered to about 20% with new belt presses at both plants. The new belt presses had to dewater to at least 22.5% in order to meet landfill requirements. As a result, waste activated secondary sludges were dewatered separately and sent to a private landfill. Clean Water Grant Funds aided in the construction of the important facilities improvements at Plant No. 2 including the activated sludge plant (\$45 million) and sludge handling/process facilities (\$30 million).
- In November 1983, OCSD's Boards of Directors submitted a new Residual, Solids Management Plan to the EPA. The plan included both short- and long-term compliance strategies. The short-term compliance plan involved the continued practice of trucking 22.5% solids to Coyote Canyon landfill for co-disposal with municipal waste until the landfill closed in March 1990. It also included hauling sludge to private landfills using OCSD's trucks or private contractors. The long-term plan included co-disposal at county landfills and off-site reuse/management by private contractors.
- In November 1984, OCSD approved an interim sludge disposal program due to the limitation of the amount of sludge this could be co-disposed at Coyote Canyon. As part of this program, an agreement was made with BKK Corporation to take the balance of the sludge to the BKK-owned and operated in West Covina (Los Angeles County). This contract expired in late 1991.
- In 1987, OCSD began a facilities master planning effort that culminated in July 1989. The 1989 30-year master plan, "2020 Vision," established 11 major objectives for maintaining our excellent record of environmental and public health protection including, "Sludge Reuse: OCSD will continue to promote multiple, beneficial reuse alternatives for sludge and strive to increase beneficial reuse from 60% to 100%. We will develop at least one in-county land disposal alternative as a backup to guarantee long-term reliability." The goals are summarized below:
  - Continue discussions with the County of Orange pertaining to landfill co-disposal options;
  - Pursue co-disposal options at out-of county landfills;
  - Continue and/or expand use of private contracts to reuse or dispose of sludge;
  - Pursue with Orange County Environmental Management Agency staff the use of sludge as the final cover for Coyote canyon's closure;

- Monitor the status of the;
  - Initiate a regular status review of OCSD management program that would provide centralized information in one location; and
  - Hire a full-time sludge manager to coordinate OCSD' overall sludge reuse/disposal program (completed in August of 1989).
- The goals noted above led to a series of new recycling options starting in in 1988 using three separate contractors. Two contracts were created with compost contractors, and one was created with an agricultural land fertilization contractor. Using these three contractors, OCSD recycled about 50% of their sludge from 1988-1991.
  - 1990: About 50% of the sludge is processed into compost by L. Curti Truck & Equipment and by Recyc; Inc., or applied directly to agricultural land by Pima Gro Systems, Inc. The remaining 50% of the sludge is disposed in the BKK landfill in Los Angeles County. The dewatered sludge is hauled to the landfill and directly incorporated with municipal solid waste in conformance with operating requirements of the Regional Water Quality Control Board, Los Angeles.

Prior to March of 1990, landfill co-disposal was available at the Coyote Canyon landfill in Orange County and the BKK landfill. During this period 14% of the Districts' sludge went to Coyote Canyon and 36% went to BKK.

- On June 24, 1991 a new solids handling storage facility (truck loading) was placed in service. Plant No. 1 Belt Press Dewatering Building M was placed in service in February 1983. Belt Press Dewatering Building C was placed in service in October 1988. By 2018, the belt presses will be replaced by centrifuges, the DAFTs will be replaced by thickening centrifuges, and truck loading will be rehabilitated.
- Beginning in Beginning in November 1991, the Districts' Biosolids Management Program achieved a milestone of 100% beneficial reuse. Beneficial reuse allows the Districts to lower its management costs and eliminate the need to take up valuable landfill space. The program consisted of compost, direct land application, and a standby agreement to landfill the biosolids in the event of an emergency. Further benefits of switching to beneficial reuse was been a reduction in disposal costs. Beneficial reuse costed the Districts less than landfilling and was expected to become even more cost effective in the future as the market for compost material grows. About 73% of the biosolids are processed into compost by Pima Gro Systems, Inc. at the Riverside Recyc compost facility. The remaining 23% is applied directly to agricultural land by Ag Tech Company in Yuma, Arizona.
- During 1993-94, only one biosolids contractor was used to haul and manage the OCSD's biosolids produced by Plant No. 1. Pima Gro Systems, Inc.

hauled the biosolids to the Recyc processing site in Riverside County where it was composted. The biosolids based compost was then sold to nearby farmers as a nutrient rich soil amendment and fertilizer.

- In late 1994, the Ag Tech Company was contracted to use OCSD biosolids to enhance agricultural soils, reduce the amount of irrigation water needed, and provide a much needed source of organic humus. The biosolids were injected 6 inches to 15 inches beneath the surface (in the root zone) within hours of their arrival to permitted farm lands.
- In June 1995, Bio Gro, a division of Wheelabrator Clean Water Systems, Inc., was added as a biosolids contractor. Biosolids were recycled on agricultural land in Riverside County. Pima Gro used commercial fertilizer spreaders to distribute the biosolids prior to incorporation on agricultural land in Kern County, California.
- In March 1996, Tule Ranch was added as a biosolids contractor. Pima Gro was still recycling biosolids in Kern County, California, and Bio Gro was recycling biosolids in Riverside. No composting was reported.
- In 1997, continued 100% beneficial reuse with all biosolids recycled via direct land application in Kern, Riverside, and San Diego counties.

The Districts also entered into a one-year pilot project contract with Waste Conversion Industries, Inc. (WCI) to chemically treat and heat dry the Districts' biosolids at their Corona, California site. Due to mechanical difficulties, WCI was not able to process any of the Districts' biosolids.

During fiscal year 1996-97, the Districts' biosolids management cost was reduced by approximately \$1 million from that of fiscal year 1995-96. New and amended biosolids management contracts as well increased efficiency in the Districts' belt operation contributed to the decrease in biosolids management costs. Upon the expiration of the Ag Tech contract and the termination of the Hondo contract, the Districts maintained only two active biosolids management contractors, Bio Gro and Pima Gro. In August 1996, having only two active biosolids management contractors, and receiving numerous unsolicited lower cost biosolids management proposals Districts' staff prepared and issued a Request for Proposals for Biosolids Management (RFP). The RFP was necessary in order to increase biosolids management diversity and reliability while decreasing costs. Eight biosolids management firms submitted proposals. Bio Gro proposed to maintain their existing contract, but unilaterally offered a pricing amendment, while Pima Gro submitted a new proposal that provided the Districts with the option of accepting the entire proposal or modify the pricing structure of the existing contract.

After extensive review and ranking of the proposals by staff, new contracts were offered to Tule Ranch and Waste Conversion Industries, Inc., while Bio Gro's and Pima Gro's existing contracts were amended to reflect their new price schedules.

- In 1998 through 2000, continued 100% beneficial reuse with all biosolids recycled via direct land application in Kern, Kings, San Diego and Riverside counties. Pima Gro, Bio Gro, and Tule Ranch were OCSD's biosolids contractors. Small amounts of biosolids were composted at Pimo Gro's Riverside composting facility, Bio Gro's Arizona Soils facility in La Paz County, Arizona, and by Pima Gro for a UCR Extension research project in Imperial County.
- In June 2000, OCSD purchased 1,800 acres of Tule Ranch's farm in Kings County, California, to provide a reliable, long-term site for treatment and land application of biosolids. Tule Ranch contracted to manage OCSD's biosolids its farm at a reduced cost per ton.
- In 2001, Synagro purchased Pima Gro and Bio Gro, and OCSD added Yakima as a contractor. One-hundred percent beneficial reuse via direct land application in Kern, Kings, San Diego, and Riverside. Synagro also recycled biosolids to tribal land farms in San Bernardino County, California. Small amounts were composted in Riverside and tribal land.

In 2001, Riverside County issued an ordinance that banned the use of Class B biosolids for land application but allowed limited use of Class A biosolids. In 2003, the restrictions were expanded to address nuisance problems related to Class A biosolids. Kern County's Class A requirement (Class B ban) went into effect in early 2002, and King's County followed in 2003 with only composted biosolids allowed after 2006.

- In 2002, as staff began work on a large-scale long-range biosolids management plan and contentious local county Class B land application bans were on the rise, OCSD began increasing diversification away from land application and added more composting in Riverside County. Biosolids were also recycled on Fort Mohave tribal land in Mohave County, Arizona and Clark County, Nevada.
- October 28, 2002 Yakima Co. began operations at their new biosolids management site in La Paz County, Arizona. The operation involved biosolids air drying to achieve material greater than 50% total solids and use as alternative daily cover at La Paz Landfill. A total of 4,628.09 wet tons (881.7 dry metric tons) of biosolids were managed through this process through 2002. This amount represents about 2% of the total District's biosolids material beneficially reused in land application operations during 2002. The District discontinued its use of the Yakima Co. for management of its biosolids



in early January 2003. The facility was later shut-down by the County of La Paz and a lawsuit was won against the County by Yakima for \$9.2 million in damages.

- In 2002, OCSD's Board of Directors voted to increase the level of treatment to full-secondary treatment requirements, which produced significantly more biosolids, especially between 2002 to 2005, until the new dewatering centrifuges could be constructed and implemented at each plant (2018-2020). OCSD's focus through the 2000's was on building the water-side capital facilities to meet this increased level of service.
- In 2003, OCSD continued to encourage contractors to diversify its biosolids options, especially in Arizona and Nevada. OCSD started using Arizona Soils in La Paz County, Arizona on a regular basis. OCSD additionally piloted Tule Ranch's subcontractor, Universal, to utilize farms in Wellton and Dateland, Arizona for land application of about 6% of OCSD's biosolids. Tule Ranch's Class A lime stabilization process was started in order to continue recycling biosolids in Kern and Kings Counties. A small amount of biosolids was used in Maricopa County, Arizona.

In addition, OCSD started using Solid Solutions to recycle biosolids in Nye County, Nevada to further diversify the biosolids management program. Solid Solutions was a subcontractor to California Soils Products who had a 2002 contract with OCSD to render biosolids into a treated soil product.

By March 2004, OCSD pulled out of Nye because of a hearing with complaints from affected neighbors, local competition with dairy manure, and a letter from Nevada congressional representative, Harry Reid, whose brother was a local resident. This episode also captured the attention of the 2003-04 Orange County Grand Jury who performed an investigative study and published a report: <http://www.ocgrandjury.org/pdfs/biosolids.pdf>.

OCSD concluded its use of Solid Solutions in 2005 when it was clear that the Soil Products facility would not materialize.

- In December 2003, OCSD finalized a Long Range Biosolids Management Plan that set forth the following recommendations to ensure a sustainable biosolids management program. These recommendations were implemented over the following decade.
  - Maintain at least three different product-manufacturing options at any given time.
  - Optimize capital and operations and maintenance (O&M) costs at OCSD's treatment plants as part of implementation of the long-range plan.
  - Limit maximum participation for any market to one-half of the total biosolids production.

- Limit biosolids management contracts to a maximum of one-third of total biosolids production per merchant facility, and one-half per contractor (for contractors with multiple product manufacturing facilities).
  - For each OCSD-owned product manufacturing facility, limit the size to one-half of the total biosolids production.
  - Explore funding options for in-county facilities (private capital, OCSD capital, or both).
  - Allocate up to 10 percent of biosolids for participation in emerging markets.
  - Pursue Orange County-based product manufacturing facilities and maximize the use of horticultural products within the OCSD service area by member agencies and through developing public-private partnerships.
  - Maintain capacity and options at OCSD's Central Valley Ranch.
  - Pursue failsafe backup options (landfilling, alternative daily cover for landfills, and dedicated landfilling) to acquire a 100 percent contingency capacity.
- From **November 1991 through December 2004, OCSD achieved 100 percent beneficial reuse** of its biosolids mostly through the use of land application with some composting.
  - In 2004, OCSD started ramping up the land application in Arizona through Tule Ranch's Dateland operation, from about 10% in 2003 to 20% in 2004. OCSD also ramped up its use of compost sites in California and Arizona from about 7% in 2003 to 20% in 2004.
  - In January 2005 and 2006, OCSD sent a small fraction of its biosolids to two landfills in Arizona (Copper Mountain and South Yuma County Landfill) in order to increase the diversity of its biosolids management options, as well as address the operational needs caused by wet weather periods. The routes to these two landfills were not impacted by severe weather.
  - Starting in 2006, Synagro eliminated their last remaining OCSD land application (Maricopa County), as fuel prices hit record highs, and focused on composting services.

On December 27, 2006, Synagro's new composting facility (South Kern Compost Manufacturing Facility) came online. This was the first long-term contract to become operational as an outcome of the 2003 Long-Range Biosolids Management Plan.

- In 2007, with OCSD's contract that guaranteed at least 250 tons per day to Synagro's new facility, OCSD's biosolids allocation to compost facilities expanded to its current level of about 50% of its total biosolids production. These facilities have extensive permitting and regulatory oversight and reporting, improved public outreach with neighbors and local communities,

and have more air quality and odor process controls. Today's framework is more sophisticated than what was in place two decades ago.

Land application was also allocated about 50% of OCSD's portfolio with half of that as lime-stabilized Class A in Kern County and half as Class B in Yuma County, Arizona.

- In March 2007, OCSD stopped actively using landfills and maintained this option only as a failsafe backup. OCSD re-gained its **100 percent recycling performance from 2008 through 2012** (excluding some digester cleanings).
- In August 2007, the Orange County Water District's (OCWD) Advanced Water Purification Facility, later called the Ground Water Replenishment System (GWRS), started taking an average of 30 MGD of Plant No. 1's secondary treated water to test their facility in purifying the water to meet drinking water standards. OCWD uses microfiltration and reverse osmosis. The water is used as a barrier for salt water intrusion and to recharge groundwater basins starting in January 2008. About 100 MGD of OCSD's secondary effluent produced about 70 MGD of purified water for reuse. Secondary effluent not sent to OCSD is sent as usual to Plant No. 2 to blend with treated wastewater from Plant No. 2 prior to ocean discharge through OCSD's 120-inch, 5-mile outfall. In 2015, an additional 20 MGD of influent sewage was diverted from Plant No. 2 to Plant No. 1 to support the GWRS expansion. GWRS purifies OCSD's secondary treated water from Plant No. 1 to meet drinking water standards. OCSD provides GWRS about 120 MGD of secondary effluent to produce purified water for reuse.
- In October 2008, Synagro's Regional Compost Facility in Riverside County stopped receiving OCSD biosolids in order to prepare for the site's closure. The facility's conditional use permit was not renewed by the County of Riverside after homes were developed nearby and residents filed hundreds of odors complaints.
- In late 2008, OCSD stopped using Tule Ranch's Kern County. This change in strategy culminated when the EnerTech facility started commissioning their process and Kern County required additional costly environmental studies to continue utilizing that option. OCSD's Kings County property was sold in December 2011.
- As part of the 2003 Long Range Biosolids Management Plan implementation, OCSD issued a series of request for proposals in 2004. As a result, EnerTech Environmental, Inc. was awarded a 225-ton guaranteed-minimum contract in 2005, which was signed in May 2006. The Rialto facility was constructed and began commissioning on November 3, 2008. OCSD reallocated Tule Ranch's Kern County land application loads to EnerTech to meet contractual obligations. EnerTech's patented technology used heat and pressure to convert biosolids to a certified renewable energy pellet (E-fuel) that was

burned as a replacement for coal in local cement kilns. EnerTech encountered a series of technical and permitting setbacks during the commissioning process. During the start-up process, biosolids not processed at the Rialto facility were land-applied in Yuma County, Arizona by Terra Renewal (formerly Solid Solutions).

In November 2010, EnerTech began implementation of a Single Train Technical Plan that was anticipated to address the issues and finish the commissioning process by March 2012. After a final extension and failure to meet contractual performance requirements, OCSD terminated its contract with EnerTech effective July 2012. OCSD re-allocated the EnerTech loads to our two remaining contractors, Synagro (composting) and Tule Ranch (land application), at about 50% each.

- March 2009, OCSD began diverted settled sludge from Plant No. 1's primary clarifiers, along with about 2.5 MGD of belt press dewatering filtrate, to Plant No. 2's headworks, where they are mixed with the influent wastewater. OCSD built a new pump station at Plant No. 1, the Steve Anderson Lift Station, in order to bring more flow into Plant No. 1 to provide more flows to GWRS. However, the additional flows produced more solids than Plant No. 1 was equipped to handle during rehabilitation of its digesters and construction of its thickening and dewatering centrifuges, making the diversion of these solids to Plant No. 2 necessary. OCSD diverted the cationic dewatering filtrate to protect GWRS from the dewatering polymers. The sludge diversion is anticipated to continue until the new sludge thickening and dewatering facility (P1-101) at Plant No. 1 is operational in 2018 per the current CIP schedule.
- In March 2010, OCSD sent a demonstration load to the City of Los Angeles Terminal Island Renewable Energy (TIRE) project via OCSD's contract with Tule Ranch. OCSD material was not compatible with their facility because the material required more screening than the City's biosolids.
- In April 2010, Tule Ranch permanently moved their land application operations from Dateland, AZ to Yuma, AZ.
- In January 2011, Tule Ranch formed an agreement with AgTech and managed OCSD biosolids at two sites (Desert Ridge and AgTech) in Yuma. The following year, Tule Ranch purchased the AgTech operations and integrated the two operations. Tule Ranch has continued land applying at both Yuma sites.
- In 2012, OCSD met the new NPDES ocean discharge permit's treatment requirements for secondary treatment standards. With full secondary treatment facilities operational, the focus is now on asset rehabilitation, including solids treatment facilities. The Capital Improvement Program Annual

Report ([www.ocsd.com/CIPAnnual](http://www.ocsd.com/CIPAnnual)) summarizes the projects and their progress.

- In February and March 2012, OCSD's Plant No. 2 biosolids exceeded the Arsenic Table 3 Exceptional Quality Limit for fields 23110121, 2311013, 2311021, and 2311022, but were below Table 1 Ceiling Concentrations. OCSD's land application contractor, Tule Ranch, already reports Table 2 Cumulative Pollutant Loading Rates for *all* pollutants and *all fields* as part of their annual report to the Arizona Department of Environmental Quality.
- As directed by the Board's November 2011 Strategic Plan direction, OCSD executed an agreement with Orange County Waste and Recycling (OCWR) to manage up to 100 tons per day of OCSD's biosolids at the Prima Deshecha landfill located in the city of San Juan Capistrano, California. This alternative provides OCSD a local biosolids management option during projected peak biosolids production period until 2017.

As a result of the landfill start-up in 2013, OCSD is recycling about 94-97% of its biosolids, with the remaining biosolids going to the OCWR landfill. Landfill loads do not count towards recycling despite the indirect energy production from capturing methane onsite. OCSD sends the landfill about 1 truck per day of grit and screenings (non-recyclable material) and 3 trucks of biosolids per day (5 days per week when not impacted by rain) in order to keep some revenues and resources in-County (see also OCSD Biosolids Policy Board Resolution 13-03: [ocsd.com/policy](http://ocsd.com/policy)).

However, after residential complaints in late 2016, biosolids loads to the landfill were on hiatus until operations moved further away from the phase of the housing development that opened in Fall of 2016. With the heavy rains received December through February 2017, the landfill was operating in a different section, and OCSD remained on hiatus. In February 2017, OCSD received direction to cease disposal of biosolids to the landfill. The amount of biosolids landfilled impacted the city of Fountain Valley, which is one of OCSD member agency. The City is required by CalRecycle to divert 50% of its solids waste from the landfill. Since OCSD is located in the city of Fountain Valley (host city), the tonnage of biosolids being landfilled counted against the city's solids waste diversion goal of 50% diversion. In response, OCSD stop hauling biosolids to landfill for disposal.

- In November 2016, the Kern Measure E (2006) biosolids ban was struck down. A Tulare County Superior Court judge ruled that Kern County Measure E is invalid and unlawful. The Judge found that Measure E, the ordinance banning land application of biosolids in the unincorporated areas of the county, is preempted by state recycling laws and exceeded Kern's police powers. The judge granted a permanent injunction against enforcing Measure E. In September 2017, parties signed a settlement agreement allowing the City of Los Angeles to continue to land apply biosolids.

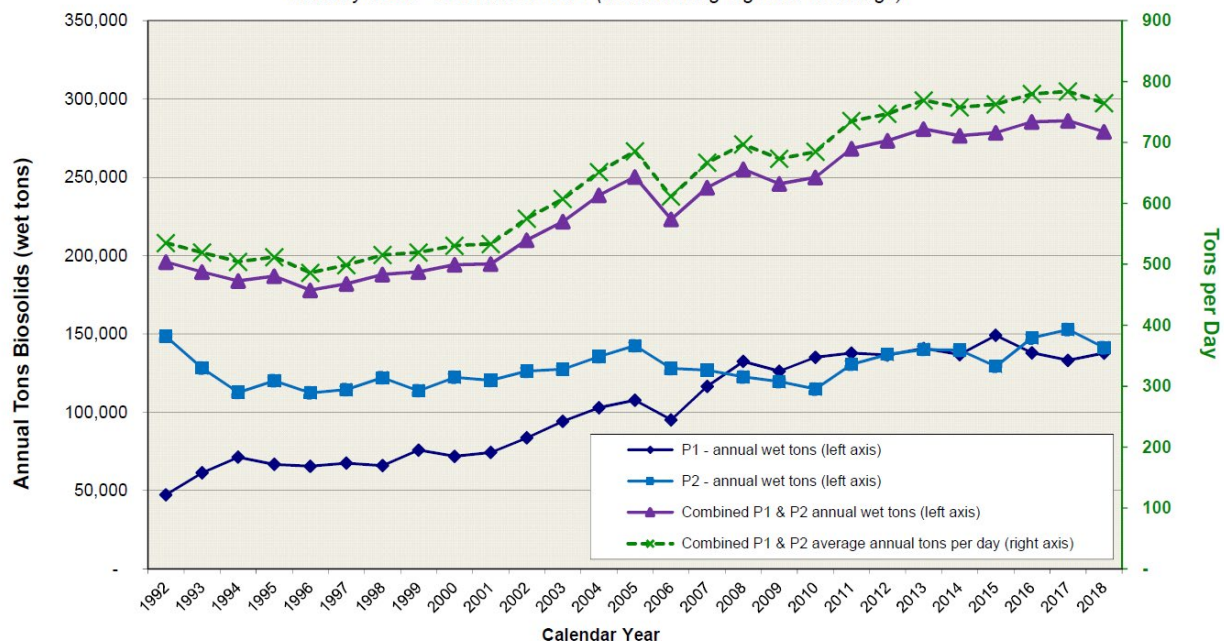
- In May 2017, OCSD completed a comprehensive Biosolids Master Plan ([ocsd.com/BMP](http://ocsd.com/BMP)) that is providing a long-term framework for a sustainable, cost-effective biosolids management program. The Plan recommended building temperature-phased anaerobic digesters at Plant No. 2 to address seismic issues with existing digesters while creating an essentially pathogen-free biosolids product. In addition, OCSD will install a food waste receiving station at Plant No. 2. The food waste facility will support state and local organics recycling goals including diverting 50% of landfill-bound organic materials (carbon-based recyclables including biosolids) by 2020 and 75% by 2025. Food waste will be co-digested to create more gas and electricity, as well as a few additional biosolids trucks. The interim food waste facility is expected to be online in 2021, and the new digestion complex is expected to start-up in 2030.

The Master Plan also reviewed and updated the former program guiding principles. and formalized an updated set as the [“Ten Tenets of OCSD’s Biosolids Management Plan.”](#) See the report text for a list of the tenets and OCSD’s performance relative to them.

- In 2017, Project P1-100 was completed. This project cleaned and rehabilitated each of the Plant No. 1 digesters. Routine maintenance is now targeting to cleaning digesters every five years. To that end, OCSD issued a new dry-ton based bid (previous bids based on gallons) that was awarded to Synagro to clean digesters at both plants. The first 5-year cleaning was performed on Digester 7 in 2017.
- In 2017, OCSD established a biosolids compost demonstration planter at Plant No. 2 as part of an existing landscaping project. The planter uses the same native plants as nearby control planters that didn’t use biosolids. Five and ten percent biosolids compost were amended into the soil. The landscape architects and soil laboratories did not want to use biosolids compost because of the salinity analyses, so OCSD intends this demonstration will show the assimilative capacity of biosolids that is not reflected in the laboratory analysis. If successful, this demonstration will also show that the plants survive and thrive when the laboratory analyses counter-indicate biosolids because the analyses do not necessarily directly correlate to the actual field performance, and because biosolids is a more complicated blend of compounds that allow assimilative bonds that have remediating effects.
- Upon ceasing the use of the local landfill in late 2016, OCSD has subsequently achieved **100% beneficial recycling of all biosolids**, including digester cleanings.

- Between 2017 and 2018, OCSD’s cleaned record twelve (12) digesters using maintenance contracts. The contract is expected to be renewed and clean more digesters in 2019-2020:
  - Plant No. 1 – Digesters 6, 7, and 8
  - Plant No. 2 – Digesters C, E, H, L, M, N, P, R, and T.
- OCSD is commissioning new dewatering centrifuge facilities at Plant No. 1 and at Plant No. 2 that will replace the existing belt filter presses. The total percent solids of dewatered biosolids is anticipated to increase significantly in 2019, resulting in approximately one-third fewer wet-weight solids and biosolids trucks to manage. The Plant No. 1 project is also installing pre-digestion centrifuges to thicken primary and secondary solids, so the existing dissolved air floatation thickening units will be decommissioned. Additionally, the project includes the rehabilitation of the Plant No. 1 truck loading facility. The Plant No. 1 dewatering centrifuges started processing solids intermittently in November 2018. Both plants’ projects are anticipated to be complete in 2019.
- The Irvine Ranch Water District (IRWD) currently discharges its untreated solids (sludge) to OCSD. IRWD is constructing their own solids treatment facility and plans to cease sending their solids to OCSD when IRWD completes start-up of new solids handling facilities, which is now estimated for years 2019-2020. This cessation is anticipated to reduce Plant No. 1’s influent solids by 10-15%.

**Figure 1: Biosolids Production History**  
 January 1992 – December 2018 (not including digester cleanings)





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