



Wastewater Solids and Biosolids Annual Report
Part I: Wastewater solids production and disposition

Part I: Must be completed by all domestic wastewater facilities.

A. REPORTING PERIOD

1. This report is for biosolids produced during the calendar year: 2018

B. PERMIT INFORMATION

1. Permit Type (select one): NPDES or WPCF DEQ File No.: 24095
 DEQ Permit No.: 101383 EPA Permit No.: OR0026107

C. FACILITY INFORMATION

1. Legal name of facility: Depoe Bay Wastewater Treatment Plant

Physical address

2. Street Address: 212 S. W. Southpoint St.

City: Depoe Bay State: Oregon Zip code: 97341

Mailing address Same as physical address.

3. Mailing Address: P. O. Box 8

City: Depoe Bay State: Oregon Zip code: 97341

Facility Type (check all that apply)

4. Major or Tier 1 facility (design flow of 1 mgd or greater, or serving a population of 10,000 or greater)
 Minor or Tier 2 facility (design flow less than 1 mgd or serving a population less than 10,000)
 Class I wastewater treatment facility (i.e., facility with a pre-treatment program)
 Biosolids only facility
 Lagoon treatment system
 Other, please specify:

D. CONTACT INFORMATION

Responsible official

1. Name: Brady Weidner Title: City Superintendent
 Email Address: weidner@cityofdepobay.org Telephone: 541-765-3005
 Mailing Address: P.O. Box 8
 City: Depoe Bay State: Oregon Zip code: 97341

Biosolids contact Same as responsible official

2. Name: Gary Walls Title: plant operator
 Email Address: wwtp@cityofdepobay.org Telephone: 541-765-2364
 Mailing Address: P.O. Box 8
 City: Depoe Bay State: Oregon Zip code: 97341

E. WASTEWATER SOLIDS RECEIVED

Please indicate if you received wastewater solids or hauled from other facilities for processing.

Did you receive wastewater solids or hauled waste from other facilities? Yes NO

If you received unprocessed wastewater solids, please list sources below. All weight values should be reported in US tons. (US ton= 2,000 lbs) Attach additional pages if necessary.

Name	Type	Quantity	Units (choose one)	% solids
1.	<input type="checkbox"/> septage <input type="checkbox"/> sludge		<input type="checkbox"/> gallons <input type="checkbox"/> wet tons <input type="checkbox"/> dry tons	0.00%
	<input type="checkbox"/> septage <input type="checkbox"/> sludge		<input type="checkbox"/> gallons <input type="checkbox"/> wet tons <input type="checkbox"/> dry tons	0.00%
	<input type="checkbox"/> septage <input type="checkbox"/> sludge		<input type="checkbox"/> gallons <input type="checkbox"/> wet tons <input type="checkbox"/> dry tons	0.00%
	<input type="checkbox"/> septage <input type="checkbox"/> sludge		<input type="checkbox"/> gallons <input type="checkbox"/> wet tons <input type="checkbox"/> dry tons	0.00%
	<input type="checkbox"/> septage <input type="checkbox"/> sludge		<input type="checkbox"/> gallons <input type="checkbox"/> wet tons <input type="checkbox"/> dry tons	0.00%

F. WASTEWATER SOLIDS TREATMENT PROCESSES

Please indicate the solids treatment processes used at your facility (mark all that apply)

Thickening technology	Stabilization Technology	Dewatering technology
<input checked="" type="checkbox"/> Gravity <input type="checkbox"/> DAF <input type="checkbox"/> Centrifugation <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Aerobic digestion <input type="checkbox"/> Anaerobic digestion <input type="checkbox"/> Lime stabilization <input type="checkbox"/> ATAD <input type="checkbox"/> Composting <input type="checkbox"/> Thermal <input type="checkbox"/> Lagoon <input type="checkbox"/> Other:	<input type="checkbox"/> Belt press <input type="checkbox"/> Plate and frame press <input type="checkbox"/> Screw press <input type="checkbox"/> Centrifuge <input type="checkbox"/> Vacuum filter <input type="checkbox"/> Drying beds <input type="checkbox"/> Heat drying <input type="checkbox"/> Other:

$$\text{Dry tons} = \text{wet tons} \times \% \text{solids} \quad \text{Dry tons} = \frac{(\text{gal} \times \% \text{solids} \times 8.34)}{100} \times 0.0005$$

G. WASTEWATER SOLIDS DISPOSITION

Please indicate how wastewater solids were managed at your facility. Please specify reporting units. All weight values should be reported in US tons. US ton.= 2,000 lbs

Disposition of wastewater solids	Quantity (choose one)			% solids
1. <input checked="" type="checkbox"/> Treated and land applied, sold, or given-away as biosolids or biosolids-derived products	Gallons 572,000	Wet tons	Dry Tons 40.55	1.70%
2. <input type="checkbox"/> Sent to landfill. Name:	Gallons	Wet tons	Dry Tons	0.00%
3. <input checked="" type="checkbox"/> Sent to another permitted facility for treatment. Name:	Gallons 230,000	Wet tons	Dry Tons 14.19	1.48%
4. <input type="checkbox"/> Long-term storage at treatment facility (e.g., lagoon, drying bed, etc.)*	Gallons	Wet tons	Dry Tons	0.00%
5. <input type="checkbox"/> Other. Please specify: stored on site	Gallons	Wet tons	Dry Tons 20.2	1.75%

* If you operate a lagoon system and do not have accurate data on the quantity of solids in your lagoon, please check the box for long-term storage, but you may leave the quantity and other information blank.

H. LAGOON SYSTEM OPERATION and MAINTENANCE

The following section is required for facilities that operate wastewater treatment lagoons.

1. A survey of wastewater solids have been completed within the last year: Y N

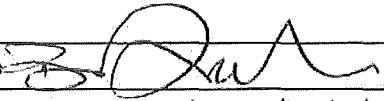
2. In what year were solids last removed from the lagoon:

3. When do you estimate the next solids removal? Select only one of the following:

- Within the next calendar year
- Within the next 5 years
- Greater than 5 years from present

I. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I certify that the information in this report is true and correct to the best of my knowledge and belief. Information and records used or referenced with this report will be maintained and made available to the Oregon Department of Environmental Quality on request.

Signature:  Title: Superintendent Date: 2-19-19
Print Name: Brady Weichner



Wastewater Solids and Biosolids Annual Report
Part II: Biosolids production and quality

Part II: Must be completed by facilities that produced Class A or Class B biosolids for land application, or sold or gave away biosolids derived products for distribution and marketing.

J. BIOSOLIDS PRODUCTION and DISPOSITION		
Please specify quantity (in dry US tons) of finished biosolids stored or produced at your facility.		
	Class A	Class B
1. Produced during reporting period		
2018		74.94
Total biosolids production	0	74.94
Please indicate how finished biosolids were managed (i.e., land applied, sold, stored, or other).		
	Class A	Class B
Land applied in bulk to agricultural land		40.55
Land applied in bulk to forest land		
Land applied in bulk to reclamation site		
Land applied in bulk to a public contact site (e.g., park, roadside golf course)		
2. Sold or given away as feedstock for a biosolids-derived product		
Sold or given away in bags or other containers		
Carried-over into next year (i.e., onsite storage)		20.20
Sent to landfill		
Other, please specify: Transferred to Lincoln City WWTP		14.19
Total biosolids disposition (add above lines)	0	74.94

K. BIOSOLIDS SAMPLING

Select your facility's minimum regulatory monitoring frequency (select only one box):

1.	Monitoring frequency	<input checked="" type="checkbox"/> Once per year	<input type="checkbox"/> Once per quarter (four times per year)	<input type="checkbox"/> Once per 60 days (six times per year)	<input type="checkbox"/> Once per month (12 times per year)
	Metric tons	<290	290 > 1,500	1,500 > 15,000	≥ 15,000
	US Tons	<319	319 > 1,650	1,650 > 16,500	≥ 16,500

Provide details on compliance sampling.

Sample type - Annual - Quarterly - 60 days - Monthly	Class	Processes (select all that apply)					Sampling date	
								Pollutants
Annual	<input type="checkbox"/> A <input type="checkbox"/> B	<input checked="" type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other			04/4/2018	04/4/2018
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
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Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				
Click Arrow	<input type="checkbox"/> A <input type="checkbox"/> B	<input type="checkbox"/> Aerobic dig. <input type="checkbox"/> Anaerobic dig. <input type="checkbox"/> Compost	<input type="checkbox"/> Air-dried <input type="checkbox"/> Heat dried <input type="checkbox"/> Lagoon	<input type="checkbox"/> Alkaline stabil. <input type="checkbox"/> Soil prod/blend <input type="checkbox"/> Other				

L. BIOSOLIDS POLLUTANT MONITORING

Report pollutant monitoring data from collected samples. Express results in mg/kg (ppm) based on dry wt. Please attach laboratory reports for results only. No lab QA/QC.

Biosolid Type: Class A Class B

Sample type	Average Pollutant Concentrations								
- Annual - Quarterly - 60 days - Monthly	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)
Annual	3.28	1.28	316	20.8	.326	3.53	8.14	3.18	707
Click Arrow									
Click Arrow									
Click Arrow									
Click Arrow									
Click Arrow									
Click Arrow									
Click Arrow									
Click Arrow									
Click Arrow									
Click Arrow									
Click Arrow									
Annual Mean									
Table 1¹ Ceiling conc.	75	85	4300	840	57	75	420	100	7500
Table 3² Pollutant conc.	41	39	1500	300	17	N/A	420	100	2800

¹ 40 CFR § 503.13 Table 1 – Ceiling concentrations. Samples with pollutant concentrations that exceed the Table 1 limits are not eligible for land application and must be disposed by other means.

² 40 CFR § 503.13 Table 3 – Pollutant Concentrations. Samples with pollutant concentrations that exceed the Table 3 limits are subject to cumulative pollutant loading rates in 40 CFR § 503.13 Table 2. Annual and cumulative pollutant additions to land application sites must be submitted with the annual report.

M. BIOSOLIDS NUTRIENT MONITORING

Report nutrient monitoring data from collected samples. Express results in mg/kg (ppm) based on dry weight, except where otherwise noted. Please attach laboratory reports for results only. No lab QA/QC.

Biosolid Type: Class A Class B

1.

Sample type	Average Nutrient Concentrations							
- Annual - Quarterly - 60 days - Monthly	TKN (mg/kg)	NO ₃ -N (mg/kg)	NH ₄ -N (mg/kg)	P (mg/kg)	K (mg/kg)	pH (S.U.)	Total solids (%)	F. coli MPN <input checked="" type="checkbox"/> CFU <input type="checkbox"/>
Annual	5.5	1.2	.65	2.0	31.1	7.0	1.98	12
Click Arrow								
Click Arrow								
Click Arrow								
Click Arrow								
Click Arrow								
Click Arrow								
Click Arrow								
Click Arrow								
Click Arrow								
Click Arrow								
Click Arrow								
Annual Mean	5.5	1.2	.65	2.0	31.1	7.0	1.98	12

N. BIOSOLIDS PATHOGEN REDUCTION MONITORING and RECORDS

Identify alternative(s) used to meet Class A or Class B pathogen reduction (PR): 40 CFR §503.32
Attach documentation on pathogen reduction.

Class A Alternatives	Class B Alternatives
<p>Biosolids have been tested for (select one or both):</p> <p><input type="checkbox"/> fecal coliform</p> <p><input type="checkbox"/> salmonella</p> <hr/> <p><input type="checkbox"/> Alternative 1: Thermally treated biosolids</p> <p><input type="checkbox"/> Alternative 2: Biosolids treated in a high pH-high temperature process</p> <p><input type="checkbox"/> Alternative 3: Biosolids treated in other processes that meet enteric virus and helminth ova criteria.</p> <p><input type="checkbox"/> Alternative 4: Biosolids treated in unknown processes that meet enteric virus and helminth ova criteria.</p> <p><input type="checkbox"/> Alternative 5: Use of a Process to Further Reduce Pathogens (PFRP) (select all that apply)</p> <p><input type="checkbox"/> (a) Composting</p> <p><input type="checkbox"/> (b) Heat drying</p> <p><input type="checkbox"/> (c) Heat treatment</p> <p><input type="checkbox"/> (d) Thermophilic aerobic digestion</p> <p><input type="checkbox"/> (e) Beta ray irradiation</p> <p><input type="checkbox"/> (f) Gamma ray irradiation</p> <p><input type="checkbox"/> (g) Pasteurization</p> <p><input type="checkbox"/> Alternative 6: Use of a Process equivalent to a PFRP.</p> <p>Identify:</p>	<p><input type="checkbox"/> Alternative 1: Monitoring of fecal coliform as the geometric mean of the density of fecal coliform of seven representative samples (select option met):</p> <p><input checked="" type="checkbox"/> < 2 million Most Probable Number (MPN) per gram of solids (dry wt. basis)</p> <p><input type="checkbox"/> < 2 million Colony Forming Units (CFU) per gram of total solids (dry wt. basis)</p> <p><input type="checkbox"/> Alternative 2: Biosolids treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described below:</p> <p><input checked="" type="checkbox"/> (a) Aerobic digestion</p> <p><input type="checkbox"/> (b) Air drying</p> <p><input type="checkbox"/> (c) Anaerobic digestion</p> <p><input type="checkbox"/> (d) Composting</p> <p><input type="checkbox"/> (e) Lime stabilization</p> <p><input type="checkbox"/> Alternative 3: Biosolids treated in a process that is equivalent to a PSRP.</p> <p>Identify:</p>

1.

O. BIOSOLIDS VECTOR ATTRACTION REDUCTION and RECORDS

Identify option(s) used to meet vector attraction reduction (VAR): 40 CFR §503.33
Attach documentation demonstrating compliance.

In-plant options:

- Option 1: 38% reduction in volatile solids content. Select method used for determining volatile solids reduction:
 - Full mass balance equation
 - Approximate mass balance equation
 - Van Kleeck equation
 - Volatile solids loss across all sewage sludge treatment processes
 - Option 2: Bench-scale anaerobic digestion for 40 additional days at 30 °C to 37 °C.
 - Option 3: Bench-scale aerobic digestion for 30 additional days at 20 °C.
 - 1. Option 4: SOUR at 20 °C. (Only for material <2% solids with no dilution.)
 - Option 5: Aerobic treatment for at least 14 days over 40 °C with an average temperature of over 45 °C.
 - Option 6: Alkali addition to raise pH to at least 12 at 25 °C and maintain a pH ≥ 12 for 2 hours and a pH ≥ 11.5 for 22 more hours.
 - Option 7: Drying with no unstabilized (primary) solids to at least 75% solids.
 - Option 8: Drying with unstabilized (primary) solids to at least 90% solids.
- Site management options:**
- Option 9: Injection with no biosolids present on land surface 1 hour after injection. (Class A biosolids only: Injection within 8 hours of pathogen reduction.)
 - Option 10: Incorporation within 6 hours of application. (Class A biosolids only: Incorporation within 8 hours of pathogen reduction.)

If VAR was met through Option 1, a 38% reduction in volatile solids, report the average reduction percentage found.

	Biosolid Type	Average Volatile Solid Reduction
2.	Class A	0.00%
	Class B	0.00%
		0.00%
		0.00%

P. VIOLATIONS OF 40 CFR §503 or OAR CHAPTER 340 DIVISION 50

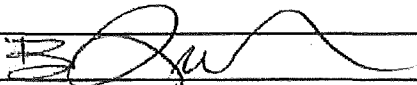
Did any violations of 40 CFR §503 or OAR Chapter 340 Division 50 occur during the reporting period?

- No.
- Yes. Provide a detailed description of the violation(s) and remedial actions taken to prevent reoccurrences in the future. If this was a spill, please include the OARS report #.

Q. SUMMARY OF PART II ATTACHMENTS

Information DEQ requests with all annual reports:	
1.	<input type="checkbox"/> Analytical laboratory reports for pollutant monitoring. <u>No lab QA/QC</u> <input type="checkbox"/> Analytical laboratory reports for nutrient monitoring. <u>No lab QA/QC</u> <input checked="" type="checkbox"/> Documentation to demonstrate compliance with pathogen reduction requirements. <input checked="" type="checkbox"/> Documentation to demonstrate compliance with vector attraction reduction requirements.
Information required if pollutants in Section L exceed Table 3 values:	
2.	<input type="checkbox"/> Annual and cumulative pollutant additions to land application sites, if any pollutant concentration exceeds the Table 3 values.
Optional and supplemental information:	
3.	<input type="checkbox"/> Other information on changes to solids handling or land application site management. <input type="checkbox"/> Other information on biosolids violations and remedial actions. <input type="checkbox"/> Other. Please specify:

R. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

<p>I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements in 40 CFR §503.32 (identified in Section P of this report) and the vector attraction reduction requirements in 40 CFR §503.33 (identified in Section Q of this report) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.</p>		
Signature		Title <u>Superintendent</u> Date <u>2-19-19</u>
Print Name:	<u>Brady Weichner</u>	



State of Oregon
Department of
Environmental
Quality

State of Oregon
Department of Environmental Quality
700 NE Multnomah St. Suite 600, Portland, OR 97232

DEQ use only

Wastewater Solids and Biosolids Annual Report
Part III: Biosolids land application site information

Part III: Must be completed by facilities that land applied Class B biosolids during the reporting period.
Add additional pages as needed.

S. LAND APPLICATION SITE INFORMATION

	Site ID	Owner (Last Name)	Location, PLSS (Township, Range, Section, Tax Lot)	Crop(s)	Appl. rate (lbs N/ac)	Total applied (DT/site)*	Total area applied (acres)	Was site applied to the previous year?	Soil test**
1.	5	Mann	9510w19	hay	25.48	40.55	35	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> y
2.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
3.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
4.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
5.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
6.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
7.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
8.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
9.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
10.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
11.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
12.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
13.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
14.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>
15.								<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>

Attach additional pages as required to report on all sites that received class B biosolids during the reporting period.

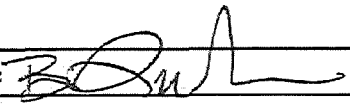
* Please report in units of dry US tons (US ton = 2,000 lbs)

** Please attach laboratory report showing sample results only. No lab QA/QC.

T. SUMMARY OF PART III ATTACHMENTS

Information required with some annual reports:	
1.	<input type="checkbox"/> Additional copies of Table S for additional land application. <input checked="" type="checkbox"/> Analytical results from soil testing
Example of documentation held by the permittee and available upon request:	
2.	<input checked="" type="checkbox"/> Additional land application site information. <input checked="" type="checkbox"/> Figures showing where biosolids were applied. <input checked="" type="checkbox"/> Nitrogen loading calculations

U. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

<p>I certify, under penalty of law, that the information that will be used to determine compliance with the site restrictions in Sec. 503.32(b)(5) for each site on which Class B sewage sludge was applied was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.</p>		
Signature		Title <u>Superintendent</u>
Print Name:	<u>Brody Weidner</u>	
		Date <u>2-19-19</u>



Delivering more than just test results

ALG ORELAP ID #OR100012

361 West 5th Ave
Eugene, OR 97401

TEL: (541) 485-8404 FAX: (541) 484-5995

Website:

Analytical Report

Date Reported: 4/12/2018

WO#: 1804213
CLIENT: City of Depoe Bay
Project:

Received Date: 4/4/2018 2:50:00 PM
Sampler Name: Gary Walls
Matrix: Soil

Lab ID:	1804213-001	Client Sample ID	#5 Grab	Collection Date:	4/4/2018 10:00:00 AM				
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Nitrate	EPA 300.0	ND		0.010	0.0050	% Dry W	04/05/18 11:10	MJ	
Nitrite	EPA 300.0	ND		0.010	0.0050	% Dry W	04/05/18 11:10	MJ	
Percent Moisture	D2216	36		0.10	0	%	04/07/18 12:10	RV	
Total Solids	EPA 160.3	64		0.10	0	%	04/07/18 12:10	RV	

Lab ID:	1804213-002	Client Sample ID	#6 Grab	Collection Date:	4/4/2018 10:00:00 AM				
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Nitrate	EPA 300.0	ND		0.010	0.0050	% Dry W	04/05/18 11:26	MJ	
Nitrite	EPA 300.0	ND		0.010	0.0050	% Dry W	04/05/18 11:26	MJ	
Percent Moisture	D2216	32		0.10	0	%	04/07/18 12:10	RV	
Total Solids	EPA 160.3	68		0.10	0	%	04/07/18 12:10	RV	

Definitions: A Accredited by ORELAP
 LOD Limit of Detection
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 PL Permit Limit
 PQL Practical Quantitation Level or Reporting Limit

Qualifiers:



ALG ORELAP ID #OR100012
361 West 5th Ave
Eugene, OR 97401
TEL: (541) 485-8404 FAX: (541) 484-5995
Website:

Analytical Report

Date Reported: 4/25/2018

WO#: 1804149
CLIENT: City of Depoe Bay
Project:

Received Date: 4/4/2018 2:50:00 PM
Sampler Name: Gary Walls
Matrix: Biosolid

Lab ID:	Client Sample ID	A Cell Grab			Collection Date: 4/4/2018 9:30:00 AM				
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Nitrate	EPA 300.0	1.2		0.010	0.0050	% Dry W	04/04/18 18:08	MJ	
Ammonia-N	EPA 350.2	0.65		0.010	0.0050	%-dry	04/20/18 09:05	TG	
Hydrogen Ion (pH)	EPA 9040C	3.8	H	0	0	pH Units	04/04/18 15:56	TN	
Phosphorus, Total (As P)	EPA 365.3	2.0		0.010	0.010	% Dry W	04/18/18 15:00	RV	
Percent Moisture	D2216	98		0.10	0	%	04/04/18 16:42	RV	
Nitrogen, Kjeldahl, Total	EPA 351.3	5.5		0.010	0	% Dry W	04/10/18 10:00	ER	
Total Solids	EPA 160.3	1.7		0.10	0	%	04/04/18 16:57	RV	
Volatile Solids	EPA 160.3	77		0.10	0	%	04/04/18 16:57	RV	

Lab ID:	Client Sample ID	Biosolid 1 Grab			Collection Date: 4/4/2018 9:30:00 AM				
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Percent Moisture	D2216	98		0.10	0	%	04/04/18 16:42	RV	
Total Solids	EPA 160.3	1.7		0.10	0	%	04/04/18 16:42	RV	
Coliform, Fecal	SM 9221 E	<12		12	0	MPN/gra	04/04/18 16:12	JL	

Lab ID:	Client Sample ID	Biosolid 2 Grab			Collection Date: 4/4/2018 9:30:00 AM				
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Percent Moisture	D2216	98		0.10	0	%	04/04/18 16:42	RV	
Total Solids	EPA 160.3	1.7		0.10	0	%	04/04/18 16:42	RV	
Coliform, Fecal	SM 9221 E	12		12	0	MPN/gra	04/04/18 16:16	RV	

Definitions: A Accredited by ORELAP
 LOD Limit of Detection
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 PL Permit Limit
 PQL Practical Quantitation Level or Reporting Limit

Qualifiers: H Holding times for preparation or analysis exceeded



ALG ORELAP ID #OR100012

361 West 5th Ave

Eugene, OR 97401

TEL: (541) 485-8404 FAX: (541) 484-5995

Website:

Analytical Report

Date Reported: 4/25/2018

WO#: 1804149
CLIENT: City of Depoe Bay
Project:

Received Date: 4/4/2018 2:50:00 PM
Sampler Name: Gary Walls
Matrix: Biosolid

Lab ID:	Client Sample ID	Bioslids 3 Grab		Collection Date: 4/4/2018 9:30:00 AM					
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Percent Moisture	D2216	98		0.10	0	%	04/04/18 16:42	RV	
Total Solids	EPA 160.3	1.7		0.10	0	%	04/04/18 16:42	RV	
Coliform, Fecal	SM 9221 E	<12		12	0	MPN/gra	04/04/18 16:16	RV	

Lab ID:	Client Sample ID	Biosolid 4 Grab		Collection Date: 4/4/2018 9:30:00 AM					
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Percent Moisture	D2216	98		0.10	0	%	04/04/18 16:42	RV	
Total Solids	EPA 160.3	1.7		0.10	0	%	04/04/18 16:42	RV	
Coliform, Fecal	SM 9221 E	<12		12	0	MPN/gra	04/04/18 16:12	JL	

Lab ID:	Client Sample ID	Biosolid 5 Grab		Collection Date: 4/4/2018 9:30:00 AM					
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Percent Moisture	D2216	98		0.10	0	%	04/04/18 16:42	RV	
Total Solids	EPA 160.3	1.7		0.10	0	%	04/04/18 16:42	RV	
Collform, Fecal	SM 9221 E	<12		12	0	MPN/gra	04/04/18 16:16	RV	

Lab ID:	Client Sample ID	Biosolid 6 Grab		Collection Date: 4/4/2018 9:30:00 AM					
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys	
Percent Moisture	D2216	98		0.10	0	%	04/04/18 16:42	RV	
Total Solids	EPA 160.3	1.7		0.10	0	%	04/04/18 16:42	RV	
Coliform, Fecal	SM 9221 E	<12		12	0	MPN/gra	04/04/18 16:12	JL	

Definitions:	A	Accredited by ORELAP	Qualifiers:	H	Holding times for preparation or analysis exceeded
	LOD	Limit of Detection			
	MCL	Maximum Contaminant Level			
	ND	Not Detected at the Reporting Limit			
	PL	Permit Limit			
	PQL	Practical Quantitation Level or Reporting Limit			



ALG ORELAP ID #OR100012
 361 West 5th Ave
 Eugene, OR 97401
 TEL: (541) 485-8404 FAX: (541) 484-5995
 Website:

Analytical Report

Date Reported: 4/25/2018

WO#: 1804149
CLIENT: City of Depoe Bay
Project:

Received Date: 4/4/2018 2:50:00 PM
Sampler Name: Gary Walls
Matrix: Biosolid

Lab ID:	Client Sample ID	Biosolid 7 Grab		Collection Date: 4/4/2018 9:30:00 AM				
Analyses	Method	Result	Qual	PQL	LOD	Units	Date Analyzed	Analys
Percent Moisture	D2216	98		0.10	0	%	04/04/18 16:42	RV
Total Solids	EPA 160.3	1.7		0.10	0	%	04/04/18 16:42	RV
Coliform, Fecal	SM 9221 E	12		12	0	MPN/gra	04/04/18 16:16	RV

Definitions:	A Accredited by ORELAP	Qualifiers:	H Holding times for preparation or analysis exceeded
	LOD Limit of Detection		
	MCL Maximum Contaminant Level		
	ND Not Detected at the Reporting Limit		
	PL Permit Limit		
	PQL Practical Quantitation Level or Reporting Limit		



ALG ORELAP ID #ORI00012
 361 West 5th Ave
 Eugene, OR 97401
 TEL: (541) 485-8404 FAX: (541) 484-5995
 Website:

QC SUMMARY REPORT

25-Apr-18

WO#: 1804149
 Client: City of Depoe Bay
 Project:

QC Type	Sample ID	Analyses	Method	Analysis Date	Result	Units	RL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
MBLK	MB-R21777	Total Solids	EPA 160.3	4/4/2018	ND	%	0.10									
MBLK	MBLK-R21776	Total Solids	EPA 160.3	4/4/2018	ND	%	0.10									
MBLK	MB-R21777	Volatile Solids	EPA 160.3	4/4/2018	ND	%	0.10									
MBLK	MB-3623	Nitrate	EPA 300.0	4/4/2018	ND	% Dry W	0.010									
MBLK	MB-3680	Ammonia-N	EPA 350.2	4/20/2018	ND	mg/L	0.010									
MBLK	MB-3640	Nitrogen, Kjeldahl, Total	EPA 351.3	4/10/2018	ND	% Dry W	0.010									
MBLK	MB-3667	Phosphorus, Total (As P)	EPA 365.3	4/18/2018	ND	% Dry W	0.010									
LCS	LCS-3623	Nitrate	EPA 300.0	4/4/2018	2.5	% Dry W	0.010	2.500	0	99.5	85	115				
LCS	LCS-3680	Ammonia-N	EPA 350.2	4/20/2018	5.0	mg/L	0.010	5.000	0	99.0	85	115				
LCS	LCS-3640	Nitrogen, Kjeldahl, Total	EPA 351.3	4/10/2018	4.8	% Dry W	0.010	5.000	0	95.2	85	115				
LCS	LCS-3667	Phosphorus, Total (As P)	EPA 365.3	4/18/2018	0.74	% Dry W	0.010	0.8000	0	92.7	85	115				
LCS	LCS-R21770	Hydrogen Ion (pH)	EPA 9040C	4/4/2018	7.1	pH Units	0	7.030	0	101	90	110				

Qualifiers:

Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report

ORCLAP 100018
EPA OR00028

Analytical Laboratory Group, Inc.
361 West Fifth Avenue
Eugene, OR 97401
Client Sample ID: **1804149-002A**
Sample Location: **A Cell**
Project: **1804149**

Lab Order: **1804246**
NRC Sample ID **1804246-01A**
Collection Date: **4/4/2018 9:30:00 AM**
Received Date: **4/6/2018 10:00:00 AM**
Reported Date: **4/18/2018 10:32:41 AM**
Matrix: **Sludge**

ANALYTICAL RESULTS

Analyses	Result	Qual	MDL	MRL	Units	DF	NELAP	Date Analyzed
TRACE METALS			EPA 7471A					Analyst: JWC
Mercury	0.326		0.00114	0.101	mg/Kg-dry	1	A	4/12/2018
TRACE METALS			EPA 6010B					Analyst: JWC
Arsenic	3.28		0.156	2.51	mg/Kg-dry	1	A	4/16/2018
Cadmium	1.28		0.00844	0.0503	mg/Kg-dry	1	A	4/16/2018
Chromium	8.34		0.00844	0.251	mg/Kg-dry	1	A	4/16/2018
Copper	316		0.597	10.1	mg/Kg-dry	20	A	4/16/2018
Lead	20.8		0.0365	2.51	mg/Kg-dry	1	A	4/16/2018
Molybdenum	3.53		0.0124	2.51	mg/Kg-dry	1	A	4/16/2018
Nickel	8.14		0.0236	0.251	mg/Kg-dry	1	A	4/16/2018
Potassium	3110		47.9	1010	mg/Kg-dry	20	A	4/16/2018
Selenium	3.18		0.254	2.51	mg/Kg-dry	1	A	4/16/2018
Silver	1.06		0.0182	0.0503	mg/Kg-dry	1	A	4/16/2018
Zinc	707	MI	1.98	50.3	mg/Kg-dry	20	A	4/16/2018
% TOTAL SOLIDS			SM 2540G					Analyst: SCM
Total Solids	1.97		0.0100	0.01	%	1	A	4/10/2018

Qualifiers: * Value exceeds Maximum Contaminant Level E Value above quantitation range J Analyte detected below quantitation limits S Spike Recovery outside accepted recovery limits	B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Minimum Reporting Limit
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25

CELL START DATE _____ TRANSFER DATE _____ COLONY TRANSFERS _____

HOLAWI

TRANSFER TO CELL _____

AEROBIC ~~ASSAY~~ CELL A

TEMP 15.7

P.H. 6.85

START DO 10.72

START TEMP 15.7

Min	DO
1	10.72
2	10.69
3	10.63
4	10.53
5	10.46
6	10.39
7	10.27
8	10.21
9	10.12
10	10.03

$$\frac{.69}{10} \times 60 = 4.14 \text{ OUR}$$

$$\text{OUR } \frac{4.14 \times 1000}{1.6 \times .77 \times 1000} = .36 \text{ SOUR}$$

.36 @ 16°C

.54 @ 20°C

_____ = _____ = _____ % VSS
REDUCTION

1.5 Sour on Lower

30% VSS Reduction on Moni

To Pass

