Victor Valley Wastewater Reclamation Authority

2016 Annual Biosolids Report

Submitted to: USEPA on February 21, 2017

Sewage Sludge (Biosolids) Annual Report

EPA Regulations – 503.18, 503.28, 503.48

INSTRUCTIONS

EPA's sewage sludge regulations (40 CFR part 503) require certain POTWs and Class I sewage sludge management facilities to submit to an annual biosolids report. POTWs that must submit an annual report include POTWs with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more. This is the biosolids annual report form for POTWs and Class I sewage sludge management facilities in the 42 states and all tribes and territories where EPA administers the Federal biosolids program.

For the purposes of this form, the term 'sewage sludge' 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.

Please note that questions with a (*) are required. Please also note that EPA may contact you after you submit this report for more information regarding your sewage sludge program.

Questions regarding this form should be directed to the NPDES Electronic Reporting Helpdesk at:

- NPDESeReporting@epa.gov OR
- 1-877-227-8965

What action would you like to take? *

New Biosolids Program Report

1. Program Information

Please select the NPDES ID number below for this Sewage Sludge (Biosolids) Annual Report. *

CAL102822: VICTOR VALLEY WRA WWTP

IMPORTANT - If you do not see the NPDES ID associated with your facility (i.e., you only see a blue bar in the above drop down list), you MUST follow the instructions in the "Biosolids User's Guide." A shorter set of instructions to fix this issue are in the "Important Instructions on Accessing Your NPDES ID" document. Both documents are located at: https://epanet.zendesk.com/hc/en-us/sections/207108787-General-Biosolids.

Facility Name: VICTOR VALLEY WRA WWTP

Street: 15776 Main St. Suite 3

City: Hesperia

State: CA

Zip Code: 92345

1.1 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 503. The facility is: *

- [x] a POTW with a design flow rate equal to or greater than one million gallons per day
- [ ] a POTW that serves 10,000 people or more
- [ ] a Class I Sludge Management Facility as defined in 40 CFR 503.9
- [ ] otherwise required to report (e.g., permit condition, enforcement action)
- [ ] none of the above

1.2 Reporting Period Start and End Dates

Start Date of Reporting Period *	End Date of Reporting Period *
01-01-2016	12-31-2016

2. Facility Information

2.1 Biosolids or Sewage Sludge Treatment Processes

Please check the box next to the following biosolids or sewage sludge treatment processes that you used on the sewage sludge or biosolids generated or produced at your facility during the reporting period (check one or more that apply). *

Pathogen Reduction Operations (see Appendix B to Part 503)

Processes to Significantly Reduce Pathogens (PSRP)

- ☐ Aerobic Digestion
- ☐ Air Drying (or "sludge drying beds")
- ☒ Anaerobic Digestion
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization

Processes 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 (or 180°C) or higher for 30 min.)
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☒ Pasteurization

Physical Treatment Operations

- ☒ Preliminary Operations (e.g., sludge grinding, degritting, blending)
- ☒ Thickening (e.g., gravity and/or flotation thickening, centrifugation, belt filter press, vacuum filter)
- ☒ Sludge Lagoon

Other Processes to Manage Sewage Sludge

- ☒ Temporary Sludge Storage (sewage sludge stored on land 2 years or less, not in sewage sludge unit)
- ☐ Long-term Sludge Storage (sewage sludge stored on land 2 years or more, not in sewage sludge unit)
- ☒ Methane or Biogas Capture and Recovery
- ☐ Other Treatment Process:

2.2 Biosolids or Sewage Sludge Analytical Methods

EPA regulations specify that representative samples of sewage sludge that is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator must be collected and analyzed. These regulations also specify the analytical methods that must be used to analyze samples of sewage sludge. For example, EPA requires facilities to monitor for the certain parameters, which are listed in Tables 1, 2, 3, and 4 at 40 CFR 503.13 and Tables 1 and 2 40 CFR 503.23. See also 40 CFR 503.8.

Please check the box next to the following analytic methods used on the sewage sludge or biosolids generated or produced by you or your facility during the reporting period (check one or more that apply). *

Parameter	Method Number or Author	Description Text for Certification Section
Pathogens		
Ascaris ova.	☐ Sludge Monitoring - Ascaris ova. ☐ Other Ascaris ova. Analytical Method:	Sludge Monitoring - Ascaris ova., "Method for the Recovery and Assay of Total Culturable Viruses from Sludge (Appendix I)," Control of Pathogens and Vector Attraction in Sewage Sludge", EPA-625-R-92-013, July 2003

Parameter	Method Number or Author	Description Text for Certification Section
Enteric viruses	☒ ASTM Method D4994 - Enteric Viruses	ASTM Method D4994 - Enteric Viruses, "Standard Practice for Recovery of Viruses From Wastewater Sludges," ASTM International
	☐ Other Enteric Viruses Analytical Method:	
Fecal coliform	☐ Standard Method 9222 - Fecal Coliform	Standard Method 9222 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association [Note: This method is only allowable for Class B sewage sludge]
	☐ Standard Method 9221 - Fecal Coliform	Standard Method 9221 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ EPA Method 1680 - Fecal Coliform	EPA Method 1680 - Fecal Coliform, "Fecal Coliforms in Sewage Sludge by Multiple-Tube Fermentation using Lauryl Tryptose Broth and EC Medium," EPA-821-R-10-003, April 2010
	☒ EPA Method 1681 - Fecal Coliform	EPA Method 1681 - Fecal Coliform, Fecal Coliforms in Sewage Sludge (Biosolids) by MultipleTube Fermentation using A-1 medium, EPA-821-R-04-027, June 2005
	☐ Other Fecal Coliform Analytical Method:	
Helminth ova.	☒ W.A. Yanko Method - Helminth ova.	W.A. Yanko Method - Helminth Ova., "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges," EPA-600-1-87-014, 1987
	☐ Other Helminth ova. Analytical Method:	
Salmonella sp. Bacteria	☐ Standard Method 9260 - Salmonella	Standard Method 9260 - Salmonella, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☒ EPA Method 1682 - Salmonella	EPA Method 1682, "Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium," EPA-821-R-06-014, July 2006
	☐ Kenner and Clark Method - Salmonella	Kenner and Clark Method - Salmonella, “Detection and Enumeration of Salmonella and Pseudomonas aeruginosa,” J. Water Pollution Control Federation, 46(9):2163-2171, 1974
	☐ Other Salmonella sp. Bacteria Analytical Method:	
Total Culturable Viruses	☐ Class A Sludge Monitoring - Total Culturable Viruses	EPA Class A Sludge Monitoring - Total Culturable Viruses, "Method for the Recovery and Assay of Total Culturable Viruses from Sludge (Appendix H)," Control of Pathogens and Vector Attraction in Sewage Sludge, EPA-625-R-92-013, July 2003
	☐ Other Total Culturable Viruses Analytical Method:	

Metals

Arsenic	☐ EPA Method 6010 - Arsenic (ICP-OES)	EPA Method 6010 - Arsenic (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Arsenic (ICP-MS)	EPA Method 6020 - Arsenic (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Arsenic (GF-AAS)	EPA Method 7010 - Arsenic (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7061 - Arsenic (AA-GH)	EPA Method 7061 - Arsenic (Atomic Absorption - Gaseous Hydride), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Arsenic Analytical Method:	
Beryllium	☐ EPA Method 6010 - Beryllium (ICP-OES)	EPA Method 6010 - Beryllium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Beryllium (ICP-MS)	EPA Method 6020 - Beryllium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7000 - Beryllium (FAAS)	EPA Method 7000 - Beryllium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Beryllium (GF-AAS)	EPA Method 7010 - Beryllium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Beryllium Analytical Method	

Parameter	Method Number or Author	Description Text for Certification Section
Cadmium	☐ EPA Method 6010 - Cadmium (ICP-OES)	EPA Method 6010 - Cadmium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Cadmium (ICP-MS)	EPA Method 6020 - Cadmium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7000 - Cadmium (FAAS)	EPA Method 7000 - Cadmium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Cadmium (GF-AAS)	EPA Method 7010 - Cadmium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7131 - Cadmium (GF-AAS)	EPA Method 7131 - Cadmium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Cadmium Analytical Method:	
Chromium	☐ EPA Method 6010 - Chromium (ICP-OES)	EPA Method 6010 - Chromium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Chromium (ICP-MS)	EPA Method 6020 - Chromium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7000 - Chromium (FAAS)	EPA Method 7000 - Chromium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Chromium (GF-AAS)	EPA Method 7010 - Chromium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7191 - Chromium (AA-FT)	EPA Method 7191 - Chromium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Chromium Analytical Method:	
Copper	☐ EPA Method 6010 - Copper (ICP-OES)	EPA Method 6010 - Copper (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Copper (ICP-MS)	EPA Method 6020 - Copper (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7000 - Copper (FAAS)	EPA Method 7000 - Copper (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Copper (GF-AAS)	EPA Method 7010 - Copper (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Copper Analytical Method:	
Lead	☐ EPA Method 6010 - Lead (ICP-OES)	EPA Method 6010 - Lead (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Lead (ICP-MS)	EPA Method 6020 - Lead (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7000 - Lead (FAAS)	EPA Method 7000 - Lead (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Lead (GF-AAS)	EPA Method 7010 - Lead (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7421 - Lead (AA-FT)	EPA Method 7421 - Lead (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Lead Analytical Method:	
Mercury	☒ EPA Method 7471 - Mercury (CVAA)	EPA Method 7471 - Mercury in Solid or Semi-Solid Waste (Cold Vapor Atomic Absoprtion), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Mercury Analytical Method:	

Parameter	Method Number or Author	Description Text for Certification Section
Molybdenum	☐ EPA Method 6010 - Molybdenum (ICP-OES)	EPA Method 6010 - Molybdenum (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Molybdenum (ICP-MS)	EPA Method 6020 - Molybdenum (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7000 - Molybdenum (FAAS)	EPA Method 7000 - Molybdenum (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Molybdenum (GF-AAS)	EPA Method 7010 - Molybdenum (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7481 - Molybdenum (AA-FT)	EPA Method 7481 - Molybdenum (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Molybdenum Analytical Method:	
Nickel	☐ EPA Method 6010 - Nickel (ICP-OES)	EPA Method 6010 - Nickel (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Nickel (ICP-MS)	EPA Method 6020 - Nickel (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7000 - Nickel (FAAS)	EPA Method 7000 - Nickel (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Nickel (GF-AAS)	EPA Method 7010 - Nickel (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Nickel Analytical Method:	
Selenium	☐ EPA Method 6010 - Selenium (ICP-OES)	EPA Method 6010 - Selenium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Selenium (ICP-MS)	EPA Method 6020 - Selenium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Selenium (GF-AAS)	EPA Method 7010 - Selenium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7740 - Selenium (AA-FT)	EPA Method 7741A - Selenium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7741 - Selenium (AA-GH)	EPA Method 7741 - Selenium (Atomic Absorption - Gaseous Hydride), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Selenium Analytical Method:	
Zinc	☐ EPA Method 6010 - Zinc (ICP-OES)	EPA Method 6010 - Zinc (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ EPA Method 6020 - Zinc (ICP-MS)	EPA Method 6020 - Zinc (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7000 - Zinc (FAAS)	EPA Method 7000 - Zinc (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 7010 - Zinc (GF-AAS)	EPA Method 7010 - Zinc (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Zinc Analytical Method:	

Nitrogen Compounds

Ammonia Nitrogen	☐ EPA Method 350.1 - Ammonia Nitrogen	EPA Method 350.1 - Ammonia Nitrogen, "Determination of Ammonia Nitrogen by Semi-Automated Colorimetry," August 1993
	☒ Standard Method 4500-NH3 - Ammonia Nitrogen	Standard Method 4500-NH3 - Ammonia Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Ammonia Nitrogen Analytical Method	

Parameter	Method Number or Author	Description Text for Certification Section
Nitrate Nitrogen	☐ EPA Method 9056 - Nitrate Nitrogen (IC)	EPA Method 9056 - Nitrate Nitrogen (Ion Chromatography), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 9210 - Nitrate Nitrogen (ISE)	EPA Method 9210 - Nitrate Nitrogen (Ion-Selective Electrode), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ Other Nitrate Nitrogen Analytical Method:	EPA 300.0
Nitrogen	☐ Standard Method 4500-N - Nitrogen	Standard Method 4500-N - Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☒ Other Nitrogen Analytical Method:	Calculation for total Nitrogen
Organic Nitrogen	☐ Standard Method 4500-Norg - Organic Nitrogen	Standard Method 4500-Norg - Organic Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☒ Other Organic Nitrogen Analytical Method:	Calculation
Total Kjeldahl Nitrogen	☒ EPA Method 351.2 - Total Kjeldahl Nitrogen	EPA Method 351.2 - Total Kjeldahl Nitrogen, "Determination of Total Kjeldahl Nitrogen by Semi-Automated Colorimetry," August 1993
	☐ Other Total Kjeldahl Nitrogen Analytical Method:	

Other Analytes

Fixed Solids	☐ Standard Method 2540 - Fixed Solids	Standard Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Fixed Solids Analytical Method:	
Paint Filter Test	☐ EPA Method 9095 - Paint Filter Liquids Test	EPA Method 9095 - Paint Filter Liquids Test, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Paint Filter Test Analytical Method:	
pH	☐ EPA Method 9040 - pH (≤ 7% solids)	EPA Method 9040 - pH (≤ 7% solids), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ EPA Method 9045 - pH (> 7% solids)	EPA Method 9045 - pH (> 7% solids), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other pH Analytical Method:	

Parameter	Method Number or Author	Description Text for Certification Section
Specific Oxygen Uptake Rate	☐ Standard Method 2710 - SOUR	Standard Method 2710 - Specific Oxygen Uptake Rate, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Specific Oxygen Uptake Rate Analytical Method:	
TCLP	☐ EPA Method 1311 - Toxicity Characteristic Leaching Procedure	EPA Method 1311 - Toxicity Characteristic Leaching Procedure, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other TCLP Analytical Method:	
Temperature	☐ Standard Method 2550 - Temperature	Standard Method 2550 - Temperature, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Temperature Analytical Method:	
Total Solids	☒ Standard Method 2540 - Total Solids	Standard Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Total Solids Analytical Method:	
Volatile Solids	☐ Standard Method 2540 - Volatile Solids	Standard Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Volatile Solids Analytical Method:	
No Analytical Methods	☐ No Analytical Methods Used	

2.3 What is the estimated total volume of biosolids or sewage sludge produced at your facility for the reporting period (in dry metric tons)? *

5648

3. Biosolids or Sewage Sludge Management

EPA NPDES regulations at 40 CFR 503 only require reporting for land application, surface disposal, or incineration. You have the option to select "Other Management Practice" if you wish to provide more information on how you manage your sewage sludge or biosolids.

Please use the selections below to identify how sewage sludge or biosolids generated or produced at your facility was managed, used, or disposed by you or your facility for the reporting period. You can use the button below to add as many Sewage Sludge Unique Identifier (SSUID) sections as needed to describe how you manage your sewage sludge.

SSUID Section

Sewage Sludge Unique Identifier (SSUID): 001

Management Practice Type *	Handler or Preparer Type *	Management Practice Detail *
Land Application	Owner or Operator	Agricultural Land Applicaton

Please Note: Land Application includes the distribution and marketing (sale or give away) of Class A EQ.

Bulk or Bag/Container *	Pathogen Class *	Volume Amount (dry metric tons) *
Bulk	Class A EQ (sale/give away)	2238.5

Pollutant Concentrations:

Did the facility land apply bulk sewage sludge when one or more pollutant concentrations in the sewage sludge exceeded a monthly average pollutant concentration in Table 3 of 40 CFR 503.13? *

○ Yes ◉ No

Biosolids or Sewage Sludge Pathogen Reduction Options

Please use the selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply). *

Code		Pathogen Reduction Option Class A (must also demonstrate that meet fecal coliform or salmonella limits)
☐	A1	Class A-Alternative 1: Time/Temperature
☐	A2	Class A-Alternative 2: pH/Temperature/Percent Solids
☒	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters
☐	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids
☐	A51	Class A-Alternative 5 PFRP 1: Composting
☐	A52	Class A-Alternative 5 PFRP 2: Heat Drying
☐	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment
☐	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)
☐	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation
☐	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation
☐	A57	Class A-Alternative 5 PFRP 7: Pasteurization
☐	A6	Class A-Alternative 6: PFRP Equivalency
☐	pH	pH Adjustment (Domestic Septage)

Biosolids or Sewage Sludge Vector Attraction Reduction Options

Please use the selections below to identify the vector attraction reduction options used by your facility or another person/facility for this sewage sludge unique identifier for the reporting period (check one or more that apply). *

Vector Attraction Reduction Options

☒	VR1	Option 1-Volatile Solids Reduction
☐	VR2	Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
☐	VR3	Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
☐	VR4	Option 4-Specific Oxygen Uptake Rate
☐	VR5	Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
☐	VR6	Option 6-Alkaline Treatment
☐	VR7	Option 7-Drying (Equal to or Greater than 75 Percent)
☒	VR8	Option 8-Drying (Equal to or Greater than 90 Percent)

Noncompliance Reporting

Please use the check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see 40 CFR 503) for this facility during the reporting period. EPA notes that any person who prepares sewage sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations (40 CFR 503) are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see 40 CFR 503.7).

Land Application

- [ ] Facility land applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling pollutant limit (see Table 1 of 40 CFR 503.13).
- [ ] Facility failed to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample (including appropriate method holding times) (see permit requirements and 40 CFR 503.8).
- [ ] Facility had deficiencies with pathogen reduction (see 40 CFR 503.32).
- [ ] Facility had deficiencies with vector attraction reduction (see 40 CFR 503.33).
- [ ] Land application of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see 40 CFR 503.14(a)).
- [ ] Bulk sewage sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of the United States, as defined in 40 CFR 122.2, except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see 40 CFR 503.14(b)).
- [ ] Bulk sewage sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in 40 CFR 122.2, unless otherwise specified by the permitting authority (see 40 CFR 503.14(c)).
- [ ] Bulk sewage sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in the case of a reclamation site, otherwise specified by the permitting authority (see 40 CFR 503.14(d)).
- [ ] One or more label or information sheet requirements were not met for sewage sludge that was sold or given away for land application (see 40 CFR 503.14(e)).
- [ ] Bulk sewage sludge was applied to land where the cumulative pollutant loading rates in §503.13(b)(2) have been reached.
- [ ] The required notice and information was not provided to the land application applier (see 40 CFR 503.12(f) and (g)).
- [ ] The required notice and information was not provided to the owner or lease holder of the land on which bulk sewage sludge was applied (see 40 CFR 503.12(h)).
- [ ] The required notice was not provided to the permitting authority for the State in which bulk sewage sludge was applied if the bulk sewage sludge was applied to land in a State other than the State in which the bulk sewage sludge was prepared (see 40 CFR 503.12(i) and (j)).
- [ ] The facility failed to keep the necessary records for preparers and appliers during the reporting period (see 40 CFR 503.27).
- [x] Check when done with SSUID section. *

Biosolids Monitoring Data

INSTRUCTIONS: These monitoring data should be representative of the sewage sludge that was applied to land or placed on a surface disposal site during the reporting year see 40 CFR 503.8(a). This section uses the frequency of monitoring requirements in 40 CFR 503.16 and 503.26. The following codes can be used as data qualifiers: T = Too Numerous to Count, E = Estimated, N = No Data.

Maximum Pollutant Concentration Data for All Sewage Sludge Applied to Land *

This section summarizes the maximum pollutant concentrations in sewage sludge that was applied to land during the reporting year. In accordance with 40 CFR 503.13(a), EPA's sewage sludge 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 (see Table 1 of 40 CFR 503.13). In order to identify noncompliance, EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13.

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Arsenic	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	9.2	N		N		=	8.8

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Cadmium	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	2.3	N		N		=	6.9

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Copper	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	360	N		N		=	400

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Lead	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	18	N		N		=	17

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Mercury	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	.56	N		N		=	2

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Molybdenum	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	18	N		N		=	19

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Nickel	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	23	N		N		=	21

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Nitrogen	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	42282	N		N		=	38405

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Selenium	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	6.8	N		N		=	7.4

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Zinc	Maximum	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	980	N		N		=	940

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

This section summarizes the monitoring-period average pollutant concentrations in sewage sludge that was applied to land during the reporting year.

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Arsenic	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	2.5	N		N		=	1.1

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Cadmium	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	1.9	N		N		=	3.4

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Copper	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	307.5	N		N		=	297

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Lead	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	15	N		N		=	12.1

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Mercury	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	.495	N		N		=	1.21

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Nickel	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	21	N		N		=	16.8

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Selenium	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	5.45	N		N		=	5.8

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Zinc	Average	mg/kg	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	840	N		N		=	752

Pathogens: Class A, Fecal Coliform *

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Fecal Coliform	Geometric Mean	MPN/gram	GRAB-7

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		=	25.2	N		=	17.7	N	

Pathogens: Class A, Salmonella *

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Salmonella	Geometric Mean	MPN per 4 grams	GRAB-7

January-February		March-April		May-June		July-August		September-October		November-December	
=	1.5	N		<	0.3	N		<	0.3	N	

Pathogens: Class A, Helminth Ova and Enteric Viruses *

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Enteric Viruses	Arithmetic Mean	PFU per 4 grams	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		<	1	N		<	1	N	

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Helminth Ova	Arithmetic Mean	MPN per 4 grams	COMPOS

January-February		March-April		May-June		July-August		September-October		November-December	
N		N		<	1	N		<	1	N	

Vector Attraction Reduction - Volatile Solids Options (Options 1-3) *

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Solids, total volatile percent removal	Minimum	Percent	CALCTD

January-February		March-April		May-June		July-August		September-October		November-December	
=	89.7	N		=	90.2	N		=	95.3	N	

Additional Information

Please enter any additional information in the comment box below (limit to 3,900 characters) that you would like to provide.

Additional Attachments

Certification Information

I certify, under penalty of law, that the information in 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.

Certifier E-Mail *

lolds@vvwra.com

Form Action *

Approve

Attachment A. Biosolids Quality Lab Reports

BABCOCK Laboratories, Inc.
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Client Name: Victor Valley Reclamation Authority
Contact: Lorenzo Rodriguez
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 06-Jun-2016

Project Name: VVWRA-Biosolids Sample - Anr
Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
B6E2233-01	160523-11 Staged From Drying Bed #4 - 6 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	05/23/16 10:57	Phayean McZeal	05/24/16 16:24	Courier (Hector N.)DE
B6E2233-02	160523-12 Staged From Drying Bed #4 - 8 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	05/23/16 11:01	Phayean McZeal	05/24/16 16:24	Courier (Hector N.)DE
B6E2233-03	160523-13 Staged From Drying Bed #4 - 9 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	05/23/16 11:04	Phayean McZeal	05/24/16 16:24	Courier (Hector N.)DE
B6E2233-04	160523-14 Staged From Drying Bed #4 - 10 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	05/23/16 11:08	Phayean McZeal	05/24/16 16:24	Courier (Hector N.)DE

BABCOCK Laboratories, Inc.
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Client Name: Victor Valley Reclamation Authority
Contact: Lorenzo Rodriguez
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 06-Jun-2016

Project Name: VVWRA-Biosolids Sample - Anr
Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

Laboratory Reference Number
B6E2233-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
160523-11 Staged From Drying Bed #4 - 6 (Class 1) Biosolids (6 Grab-Comp)	Sludge	05/23/16 10:57	05/24/16 16:24

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Anions							
Nitrate as N	7.1	2.1	mg/kg dry	EPA 300.0	06/03/16 04:55	ss	N_WEX
Solids							
Total Solids	96	0.10	%	SM 2540G	05/25/16 09:00	nhb	
Nutrients							
Nitrite as N	ND	1.0	mg/kg dry	SM 4500NO2 B	05/27/16 16:15	nc	N_WEX
Ammonia-Nitrogen	3500	520	mg/Kg* dry	SM4500NH3H	05/27/16 12:30	sll	N_WEX
Kjeldahl Nitrogen	44000	2600	mg/kg dry	EPA 351.2	05/31/16 21:34	jma	
Total Phosphorus	40000	100	mg/Kg* dry	EPA 6020	06/01/16 14:31	mel	
Metals and Metalloids; EPA SW846 Series							
Antimony	ND	5.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Arsenic	8.4	5.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Barium	370	10	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Beryllium	ND	1.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Cadmium	2.1	1.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Total Chromium	53	1.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Cobalt	3.6	1.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Copper	310	1.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Lead	16	5.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Mercury	0.48	0.21	mg/kg dry	EPA 7471A	06/02/16 12:42	mel	
Molybdenum	17	1.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Nickel	23	1.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Selenium	ND	5.0	mg/kg dry	EPA 6020	06/02/16 12:53	AP	
Silver	8.4	1.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Thallium	ND	25	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Vanadium	110	5.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	
Zinc	910	5.0	mg/kg dry	EPA 6020	06/01/16 15:52	mel	

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Client Name: Victor Valley Reclamation Authority
Contact: Lorenzo Rodriguez
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 06-Jun-2016

Project Name: VVWRA-Biosolids Sample - Anr
Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

Laboratory Reference Number

B6E2233-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
160523-12 Staged From Drying Bed #4 - 8 (Class 1) Biosolids (6 Grab-Comp)	Sludge	05/23/16 11:01	05/24/16 16:24

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Anions							
Nitrate as N	35	2.2	mg/kg dry	EPA 300.0	06/03/16 05:04	ss	N_WEX
Solids							
Total Solids	92	0.10	%	SM 2540G	05/25/16 09:00	nhb	
Nutrients							
Nitrite as N	ND	1.1	mg/kg dry	SM 4500NO2 B	05/27/16 16:15	nc	N_WEX
Ammonia-Nitrogen	5900	540	mg/Kg* dry	SM4500NH3H	05/27/16 12:30	sll	N_WEX
Kjeldahl Nitrogen	50000	2700	mg/kg dry	EPA 351.2	05/31/16 21:34	jma	
Total Phosphorus	41000	110	mg/Kg* dry	EPA 6020	06/01/16 14:32	mel	
Metals and Metalloids; EPA SW846 Series							
Antimony	ND	5.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Arsenic	8.1	5.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Barium	380	10	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Beryllium	ND	1.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Cadmium	1.8	1.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Total Chromium	43	1.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Cobalt	3.2	1.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Copper	310	1.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Lead	13	5.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Mercury	0.53	0.22	mg/kg dry	EPA 7471A	06/02/16 12:44	mel	
Molybdenum	16	1.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Nickel	20	1.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Selenium	6.8	5.0	mg/kg dry	EPA 6020	06/02/16 12:54	AP	
Silver	4.5	1.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Thallium	ND	25	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Vanadium	97	5.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	
Zinc	810	5.0	mg/kg dry	EPA 6020	06/01/16 15:54	mel	

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Client Name: Victor Valley Reclamation Authority
Contact: Lorenzo Rodriguez
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 06-Jun-2016

Project Name: VVWRA-Biosolids Sample - Anr
Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

Laboratory Reference Number

B6E2233-03

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
160523-13 Staged From Drying Bed #4 - 9 (Class 1) Biosolids (6 Grab-Comp)	Sludge	05/23/16 11:04	05/24/16 16:24

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Anions							
Nitrate as N	48	2.1	mg/kg dry	EPA 300.0	06/03/16 05:13	ss	N_WEX
Solids							
Total Solids	94	0.10	%	SM 2540G	05/25/16 09:00	nhb	
Nutrients							
Nitrite as N	ND	1.1	mg/kg dry	SM 4500NO2 B	05/27/16 16:15	nc	N_WEX
Ammonia-Nitrogen	4600	530	mg/Kg* dry	SM4500NH3H	05/27/16 12:30	sll	N_WEX
Kjeldahl Nitrogen	39000	2700	mg/kg dry	EPA 351.2	05/31/16 21:34	jma	
Total Phosphorus	38000	110	mg/Kg* dry	EPA 6020	06/01/16 14:32	mel	
Metals and Metalloids; EPA SW846 Series							
Antimony	ND	5.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Arsenic	9.2	5.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Barium	390	10	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Beryllium	ND	1.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Cadmium	2.3	1.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Total Chromium	51	1.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Cobalt	3.7	1.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Copper	360	1.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Lead	18	5.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Mercury	0.41	0.21	mg/kg dry	EPA 7471A	06/02/16 12:46	mel	
Molybdenum	18	1.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Nickel	23	1.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Selenium	6.8	5.0	mg/kg dry	EPA 6020	06/02/16 12:56	AP	
Silver	5.1	1.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Thallium	ND	25	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Vanadium	110	5.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	
Zinc	980	5.0	mg/kg dry	EPA 6020	06/01/16 15:56	mel	

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Client Name: Victor Valley Reclamation Authority
Contact: Lorenzo Rodriguez
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 06-Jun-2016

Project Name: VVWRA-Biosolids Sample - Anr
Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

Laboratory Reference Number

B6E2233-04

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
160523-14 Staged From Drying Bed #4 - 10 (Class 1) Biosolids (6 Grab-Comp)	Sludge	05/23/16 11:08	05/24/16 16:24

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Anions							
Nitrate as N	38	2.1	mg/kg dry	EPA 300.0	06/03/16 05:49	ss	N_WEX
Solids							
Total Solids	96	0.10	%	SM 2540G	05/25/16 09:00	nhb	
Nutrients							
Nitrite as N	1.6	1.0	mg/kg dry	SM 4500NO2 B	05/27/16 16:15	nc	N_WEX
Ammonia-Nitrogen	4000	210	mg/Kg* dry	SM4500NH3H	05/27/16 12:30	sll	N_WEX
Kjeldahl Nitrogen	36000	2600	mg/kg dry	EPA 351.2	05/31/16 21:34	jma	
Total Phosphorus	37000	100	mg/Kg* dry	EPA 6020	06/01/16 14:33	mel	
Metals and Metalloids; EPA SW846 Series							
Antimony	ND	5.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Arsenic	6.6	5.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Barium	280	10	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Beryllium	ND	1.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Cadmium	1.4	1.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Total Chromium	41	1.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Cobalt	3.1	1.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Copper	250	1.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Lead	13	5.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Mercury	0.56	0.42	mg/kg dry	EPA 7471A	06/02/16 13:01	mel	
Molybdenum	13	1.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Nickel	18	1.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Selenium	5.7	5.0	mg/kg dry	EPA 6020	06/02/16 12:57	AP	
Silver	4.5	1.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Thallium	ND	25	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Vanadium	84	5.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	
Zinc	660	5.0	mg/kg dry	EPA 6020	06/01/16 15:58	mel	

Client Name: Victor Valley Reclamation Authority
Contact: Lorenzo Rodriguez
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 06-Jun-2016

Project Name: VVWRA-Biosolids Sample - Anr
Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

Notes and Definitions

N_WEX	Analyte determined on a 1:10 water extract from the sample.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / '" :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

cc:

e-Short_No Alias

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Client Name: Victor Valley Reclamation Authority
Contact: Lorenzo Rodriguez
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 06-Jun-2016

Analytical Report: Page 1 of 1
Project Name: VVWRA-Biosolids Sample - Anr
Project Number: [none]

Work Order Number: B6E2233

Received on Ice (Y/N): Yes Temp: 14 °C

SUBCONTRACT LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority
A Joint Powers Authority and Public Agency of the State of California
Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
Website: www.vvwra.com E-mail: Lrodriguez@vvwra.com

Project Name: Biosolids Sample – Annual NPDES
Project Contact: Lorenzo Rodriguez (760) 246-8638 ext. 216
Sampler Name: Phayvan McGee
Sampler Signature: Phayvan McGee

VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Sample Type: Grab	Sample Type: Composite	Ammonia-N	TKN	Nitrite - N	Nitrate - N	Total Phosphate-P	CAM Metals	% Total Solids	*Total CCR W.E.T. Analysis - including Asbestos & Dioxin	Total # ofContainers	Sample Preservation Methods: H_2SO_4 pH<2	Sample Preservation Methods: Refrigeration	Sample Matrix
	Storage Pad Biosolids (6 grab Composite)				X	X	X	X	X	X	X	X	X	6		6	S
160523-11	Staged From Drying Bed # 4 – 6 (Class 1)Biosolids (6 Grab-Comp)	5/23/16	1057		X	X	X	X	X	X	X	X		1		1	S
160523-12	Staged From Drying Bed # 4 – 8 (Class 1)Biosolids (6 Grab-Comp)		1101		X	X	X	X	X	X	X	X		1		1	S
160523-13	Staged From Drying Bed # 4 – 9 (Class 1)Biosolids (6 Grab-Comp)		1104		X	X	X	X	X	X	X	X		1		1	S
160523-14	Staged From Drying Bed # 4 – 10 (Class 1)Biosolids (6 Grab-Comp)		1108		X	X	X	X	X	X	X	X		1		1	S
	Staged From Drying Bed # 4 – ___ (Class 1)Biosolids (6 Grab-Comp)				X	X	X	X	X	X	X	X		1		1	S
	Staged From Drying Bed # 4 – (Class 1)Biosolids (6 Grab-Comp)				X	X	X	X	X	X	X	X		1		1	S

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Relinquished By (Sign):	Date/Time:	Received By (Sign):
Print: Phayvan McGee	5/23/16 1115	Print: Chris Hill	Print: Chris Hill	5-24-16 1215	Print: Hector Nanez
Company: VVWRA		Company: VVWRA-LAB	Company: VVWRA-LAB		Company: BE
Relinquished By (Sign):	Date/Time:	Received By (Sign):	Relinquished By (Sign):	Date/Time:	Received By (Sign):
Print: Hector Nanez	5/24/16 1624	Print: JB	Print:		Print:
Company: BE		Company: ESB	Company:		Company:

Sample Condition Upon Receipt by Laboratory:
Samples Received on Ice? (Yes) No Temperature 14 °C
Samples Received Intact? (Yes) No

Laboratory Notes
W.E.T. Extraction and EPA 6020, 7471A, 8081, 8082, 8151, 8260, 8270, 7196/719
Asbestos and Dioxin analysis.

Samples sent via courier t
E.S. Babcock Laboratori
Lab # B6E2233

Please Fax a copy of the completed Chain of Custody document to: Lorenzo Rodriguez, VVWRA at (760) 246-5440

01-02-156-7170 AB
MAY 24 2016

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Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
B6K2623-01	Staged From Drying Bed #4-1 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 09:58	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE
B6K2623-02	Staged From Drying Bed #4-2 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 10:00	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE
B6K2623-03	Staged From Drying Bed #4-3 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 10:04	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE
B6K2623-04	Staged From Drying Bed #4-5 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 10:06	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE
B6K2623-05	Staged From Drying Bed #4-11 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	11/29/16 10:11	Moises Castro	11/29/16 14:52	Courier (Hector N.) -DE

Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

B6K2623-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
Staged From Drying Bed #4-1 (Class 1) Biosolids (6 Grab-Comp)	Sludge	11/29/16 09:58	11/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	500	2.2	1.2	mg/kg dry	EPA 300.0	12/06/16 09:36	dcb	N_WEX
Solids								
Total Solids	91	0.10	0.10	%	SM 2540G	11/30/16 09:15	kl	
Nutrients								
Nitrite as N	ND	1.1	0.19	mg/kg dry	SM 4500NO2 B	11/29/16 21:45	nc	N_WEX
Ammonia-Nitrogen	2600	220	110	mg/Kg* dry	SM4500NH3H	11/30/16 20:29	nc	N_WEX
Kjeldahl Nitrogen	36000	2700	2700	mg/kg dry	EPA 351.2	11/30/16 23:58	jma	
Total Phosphorus	19000	22	11	mg/Kg* dry	EPA 6020	12/01/16 10:16	MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	0.78	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 11:56	MEL	J
Arsenic	4.9	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 11:56	MEL	J
Barium	350	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:38	ap	NMout
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Cadmium	2.3	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Total Chromium	39	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Cobalt	3.4	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Copper	270	1.0	0.78	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Lead	11	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Mercury	2.0	0.27	0.13	mg/kg dry	EPA 7471A	12/08/16 14:25	kya	
Molybdenum	9.3	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Nickel	15	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Selenium	5.1	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Silver	4.9	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:38	ap	NMint
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Vanadium	79	5.0	0.76	mg/kg dry	EPA 6020	12/01/16 17:38	ap	
Zinc	680	5.0	1.7	mg/kg dry	EPA 6020	12/01/16 17:38	ap	

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Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

B6K2623-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
Staged From Drying Bed #4-2 (Class 1) Biosolids (6 Grab-Comp)	Sludge	11/29/16 10:00	11/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	200	4.2	2.3	mg/kg dry	EPA 300.0	12/06/16 09:45	dcb	N_WEX
Solids								
Total Solids	95	0.10	0.10	%	SM 2540G	11/30/16 09:15	kl	
Nutrients								
Nitrite as N	ND	1.1	0.18	mg/kg dry	SM 4500NO2 B	11/29/16 21:45	nc	N_WEX
Ammonia-Nitrogen	3900	530	270	mg/Kg* dry	SM4500NH3H	11/30/16 20:29	nc	N_WEX
Kjeldahl Nitrogen	44000	2600	2600	mg/kg dry	EPA 351.2	11/30/16 23:58	jma	
Total Phosphorus	25000	21	11	mg/Kg* dry	EPA 6020	12/01/16 10:17	MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	0.69	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 11:58	MEL	J
Arsenic	5.0	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 11:58	MEL	
Barium	420	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Cadmium	3.3	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Total Chromium	44	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Cobalt	3.3	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Copper	250	5.0	3.9	mg/kg dry	EPA 6020	12/07/16 11:48	MEL	
Lead	12	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Mercury	1.3	0.26	0.13	mg/kg dry	EPA 7471A	12/08/16 14:27	kya	
Molybdenum	13	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Nickel	16	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Selenium	6.0	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Silver	3.5	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:41	ap	
Vanadium	69	5.0	0.76	mg/kg dry	EPA 6020	12/07/16 11:58	MEL	
Zinc	750	25	8.6	mg/kg dry	EPA 6020	12/07/16 11:48	MEL	

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Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

B6K2623-03

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
Staged From Drying Bed #4-3 (Class 1) Biosolids (6 Grab-Comp)	Sludge	11/29/16 10:04	11/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	520	11	5.7	mg/kg dry	EPA 300.0	12/06/16 09:55	dcb	N_WEX
Solids								
Total Solids	93	0.10	0.10	%	SM 2540G	11/30/16 09:15	kl	
Nutrients								
Nitrite as N	ND	1.1	0.18	mg/kg dry	SM 4500NO2 B	11/29/16 21:45	nc	N_WEX
Ammonia-Nitrogen	2100	110	54	mg/Kg* dry	SM4500NH3H	11/30/16 20:29	nc	N_WEX
Kjeldahl Nitrogen	33000	2700	2700	mg/kg dry	EPA 351.2	11/30/16 23:58	jma	
Total Phosphorus	25000	21	11	mg/Kg* dry	EPA 6020	12/01/16 10:18	MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	ND	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 12:00	MEL	
Arsenic	4.2	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 12:00	MEL	J
Barium	210	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Cadmium	1.4	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Total Chromium	31	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Cobalt	3.6	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Copper	190	1.0	0.78	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Lead	7.8	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Mercury	1.1	0.27	0.13	mg/kg dry	EPA 7471A	12/08/16 14:29	kya	
Molybdenum	11	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Nickel	14	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Selenium	3.4	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:43	ap	J
Silver	2.1	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Vanadium	62	5.0	0.76	mg/kg dry	EPA 6020	12/01/16 17:43	ap	
Zinc	410	5.0	1.7	mg/kg dry	EPA 6020	12/01/16 17:43	ap	

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Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

B6K2623-04

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
Staged From Drying Bed #4-5 (Class 1) Biosolids (6 Grab-Comp)	Sludge	11/29/16 10:06	11/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	130	2.1	1.1	mg/kg dry	EPA 300.0	12/06/16 10:05	dcb	N_WEX
Solids								
Total Solids	94	0.10	0.10	%	SM 2540G	11/30/16 09:15	kl	
Nutrients								
Nitrite as N	ND	1.1	0.18	mg/kg dry	SM 4500NO2 B	11/29/16 21:45	nc	N_WEX
Ammonia-Nitrogen	2500	210	110	mg/Kg* dry	SM4500NH3H	11/30/16 20:29	nc	N_WEX
Kjeldahl Nitrogen	32000	2700	2700	mg/kg dry	EPA 351.2	11/30/16 23:58	jma	
Total Phosphorus	27000	21	11	mg/Kg* dry	EPA 6020	12/01/16 10:19	MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	0.92	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 12:01	MEL	J
Arsenic	6.4	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 12:01	MEL	
Barium	370	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Cadmium	3.0	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Total Chromium	42	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Cobalt	3.1	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Copper	310	1.0	0.78	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Lead	11	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Mercury	0.99	0.27	0.13	mg/kg dry	EPA 7471A	12/08/16 14:31	kya	
Molybdenum	13	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Nickel	16	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Selenium	5.6	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Silver	3.2	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Vanadium	85	5.0	0.76	mg/kg dry	EPA 6020	12/01/16 17:46	ap	
Zinc	800	5.0	1.7	mg/kg dry	EPA 6020	12/01/16 17:46	ap	

Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

Laboratory Reference Number

B6K2623-05

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
Staged From Drying Bed #4-11 (Class 1) Biosolids (6 Grab-Comp)	Sludge	11/29/16 10:11	11/29/16 14:52

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	42	2.1	1.1	mg/kg dry	EPA 300.0	12/06/16 10:14	dcb	N_WEX
Solids								
Total Solids	94	0.10	0.10	%	SM 2540G	11/30/16 09:15	kl	
Nutrients								
Nitrite as N	ND	1.1	0.18	mg/kg dry	SM 4500NO2 B	11/29/16 21:45	nc	N_WEX
Ammonia-Nitrogen	3900	210	110	mg/Kg* dry	SM4500NH3H	11/30/16 20:29	nc	N_WEX
Kjeldahl Nitrogen	39000	2700	2700	mg/kg dry	EPA 351.2	11/30/16 23:58	jma	
Total Phosphorus	26000	21	11	mg/Kg* dry	EPA 6020	12/01/16 10:19	MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	0.82	5.0	0.19	mg/kg dry	EPA 6020	12/07/16 12:03	MEL	J
Arsenic	5.5	5.0	0.74	mg/kg dry	EPA 6020	12/07/16 12:03	MEL	
Barium	370	10	0.84	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Cadmium	3.3	1.0	0.63	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Total Chromium	51	1.0	0.81	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Cobalt	3.7	1.0	0.19	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Copper	360	1.0	0.78	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Lead	14	5.0	0.29	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Mercury	1.1	0.27	0.13	mg/kg dry	EPA 7471A	12/08/16 14:38	kya	
Molybdenum	13	1.0	0.46	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Nickel	19	1.0	0.48	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Selenium	7.4	5.0	2.4	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Silver	3.4	1.0	0.30	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Vanadium	120	5.0	0.76	mg/kg dry	EPA 6020	12/01/16 17:58	ap	
Zinc	940	5.0	1.7	mg/kg dry	EPA 6020	12/01/16 17:58	ap	

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Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

Notes and Definitions

J	Estimated value
N_WEX	Analyte determined on a 1:10 water extract from the sample.
NMint	Due to matrix interference, the matrix spike and/or matrix spike duplicate performed on this sample did not meet laboratory acceptance criteria.
NMout	The matrix spike and/or matrix spike duplicate performed on this sample did not meet laboratory acceptance criteria.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / ''' :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

Nancy H. Boulineau For Cindy A. Waddell

cc:

e-Short_No Alias.rpt

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NELAP No. OR4035
LACSD No. 10119

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Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 1 of 1
Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6K2623

Received on Ice (Y/N): Yes Temp: 11 °C

SUBCONTRACT LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
Website: www.vvwra.com E-mail: Edavis@vvwra.com

Project Name: Biosolids Sample – Annual NPDES
Project Contact: Eugene Davis (760) 246-8638 ext. 216
Sampler Name: Moises Castro
Sampler Signature:

VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Sample Type: Grab	Sample Type: Composite	Ammonia-N	TKN	Nitrite - N	Nitrate - N	Total Phosphate-P	CAM Metals	% Total Solids	*Total CCR W.E.T. Analysis - including Asbestos & Dioxin	Total # ofContainers	Sample Preservation Methods: H_2SO_4 pH<2	Sample Preservation Methods: Refrigeration	Sample Matrix (WW, DW, GW, SG)
~~0~~	~~Storage Pad Biosolids (6 grab Composite) RANCH~~				X	X	X	X	X	X	X	X	X RL	~~2~~ 6	~~2~~ 6		SG
14	Staged From Drying Bed # 4 – 1 (Class 1)Biosolids (6 Grab-Comp)	11/29/16	0958		X	X	X	X	X	X	X	X		1	1		SG
15	Staged From Drying Bed # 4 – 2 (Class 1)Biosolids (6 Grab-Comp)		1000		X	X	X	X	X	X	X	X		1	1		SG
16	Staged From Drying Bed # 4 – 3 (Class 1)Biosolids (6 Grab-Comp)		1004		X	X	X	X	X	X	X	X		1	1		SG
17	Staged From Drying Bed # 4 – 5 (Class 1)Biosolids (6 Grab-Comp)		1006		X	X	X	X	X	X	X	X		1	1		SG
	~~Staged From Drying Bed # 4 – 6 (Class 1)Biosolids (6 Grab-Comp)~~				~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	X		1	1		~~SG~~
18	Staged From Drying Bed # 4 – 11 (Class 1)Biosolids (6 Grab-Comp)		1011		X	X	X	X	X	X	X	X		1	1		SG

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Relinquished By (Sign):	Date/Time:	Received By (Sign):
Print: MOISES CASTRO Company: VVWRA	11/29/16 1019	Print: Johnny Bustos Company: VVWRA	Print: Johnny Bustos Company: VVWRA	11/29/16 1735	Print: Hector Ramirez Company: DE
Relinquished By (Sign):	Date/Time:	Received By (Sign):	Relinquished By (Sign):	Date/Time:	Received By (Sign):
Print: Hector Ramirez Company: DE		Print: Company:	Print: Company:	11/29 1452	Print: Company:

Sample Condition Upon Receipt by Laboratory:
Samples Received on Ice? (Yes) No
Samples Received Intact? (Yes) No
Temperature 11 °C

Laboratory Notes
W.E.T. Extraction and EPA 6020, 7471A, 8081, 8082, 8151, 8260, 8270, 7196/719
Asbestos and Dioxin analysis.

Samples sent via courier to: E.S. Babcock Laboratories
Lab # B6K2623 AB

Please Fax a copy of the completed Chain of Custody document to: Eugene Davis, VVWRA at (760) 954-5006 01-02-156-7170

NOV 29 2016

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 1 of 3
Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6L0036

Received on Ice (Y/N): Yes Temp: 13 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
B6L0036-01	Staged From Drying Bed #4-6 (Class 1) Biosolids (6 Grab-Comp) Composite	Sludge	12/01/16 09:10	Salvador Carlos	12/01/16 11:42	Courier (Hector N.) -DE

Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6L0036

Received on Ice (Y/N): Yes Temp: 13 °C

Laboratory Reference Number

B6L0036-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
Staged From Drying Bed #4-6 (Class 1) Biosolids (6 Grab-Comp)	Sludge	12/01/16 09:10	12/01/16 11:42

Analyte(s)	Result	RDL	MDL	Units	Method	Analysis Date	Analyst	Flag
Anions								
Nitrate as N	40	2.1	1.1	mg/kg dry	EPA 300.0	12/06/16 10:24	dcb	N_WEX
Solids								
Total Solids	96	0.10	0.10	%	SM 2540G	12/02/16 09:33	cmr	
Nutrients								
Nitrite as N	ND	1.0	0.18	mg/kg dry	SM 4500NO2 B	12/05/16 21:20	nc	N_WEX
Ammonia-Nitrogen	2000	100	52	mg/Kg* dry	SM4500NH3H	12/02/16 12:28	sll	N_WEX
Kjeldahl Nitrogen	45000	2600	2600	mg/kg dry	EPA 351.2	12/09/16 20:25	jma	
Total Phosphorus	34000	21	10	mg/Kg* dry	EPA 6020	12/09/16 12:03	MEL	
Metals and Metalloids; EPA SW846 Series								
Antimony	3.2	5.0	0.19	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	J
Arsenic	8.8	5.0	0.74	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Barium	410	10	0.84	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Beryllium	ND	1.0	0.37	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Cadmium	6.9	1.0	0.63	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Total Chromium	54	1.0	0.81	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Cobalt	3.8	1.0	0.19	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Copper	400	1.0	0.78	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Lead	17	5.0	0.29	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Mercury	0.78	0.26	0.13	mg/kg dry	EPA 7471A	12/08/16 14:42	kya	
Molybdenum	19	1.0	0.46	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Nickel	21	1.0	0.48	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Selenium	7.2	5.0	2.4	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Silver	4.8	1.0	0.30	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Thallium	ND	25	0.19	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Vanadium	130	5.0	0.76	mg/kg dry	EPA 6020	12/09/16 16:51	MEL	
Zinc	930	50	17	mg/kg dry	EPA 6020	12/09/16 17:40	MEL	

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6L0036

Received on Ice (Y/N): Yes Temp: 13 °C

Notes and Definitions

J	Estimated value
N_WEX	Analyte determined on a 1:10 water extract from the sample.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / ''' :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted.

Nancy H. Boulineau For Cindy A. Waddell

cc:

e-Short_No Alias.rpt

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

CA ELAP No. 2698
EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119

BABCOCK Laboratories, Inc.
The Standard of Excellence for Over 100 Years

Client Name: Victor Valley Reclamation Authority
Contact: Eugene Davis
Address: 20111 Shay Road
Victorville, CA 92394

Report Date: 12-Dec-2016

Analytical Report: Page 1 of 1
Project Name: VVWRA-Biosolids Sample - Annual NPDES
Project Number: [none]

Work Order Number: B6L0036

Received on Ice (Y/N): Yes Temp: 13 °C

SUBCONTRACT LABORATORY CHAIN OF CUSTODY AND ANALYSIS REQUEST RECORD

Victor Valley Wastewater Reclamation Authority
A Joint Powers Authority and Public Agency of the State of California
Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440
Website: www.vvwra.com E-mail: Lrodriguez@vvwra.com

Project Name: Biosolids Sample – Annual NPDES
Project Contact: Lorenzo Rodriguez (760) 246-8638 ext. 216
Sampler Name: Salvador Carlos
Sampler Signature:

VVWRA ID #	Sample Location/Description	Sample Date	Sample Time	Sample Type: Grab	Sample Type: Composite	Laboratory Analyses Requested: Ammonia-N	TKN	Nitrite - N	Nitrate - N	Total Phosphate-P	CAM Metals	% Total Solids	Total # ofContainers	Sample Preservation Methods: H_2SO_4 pH<2	Sample Preservation Methods: Refrigeration	Sample Matrix
10	Staged From Drying Bed # 4 – 6 (Class 1)Biosolids (6 Grab-Comp)	12-1-16	0910		X	X	X	X	X	X	X	X	1		1	SC

Relinquished By (Sign):	Date/Time:	Received By (Sign):	Relinquished By (Sign):	Date/Time:	Received By (Sign):
Print: Salvador Carlos Company: VVWRA	12-1-16 0920	Print: Salvador Carlos Company: VVWRA	Print: Salvador Carlos Company: VVWRA	12-1-16 1040	Print: Heather Young Company:
Relinquished By (Sign):	Date/Time:	Received By (Sign):	Relinquished By (Sign):	Date/Time:	Received By (Sign):
Print: Heather Young Company: DE		Print: Company:	Print: Company:	12/1 1142	Print: Company: ESB

Sample Condition Upon Receipt by Laboratory:
Samples Received on Ice? (Yes) No Temperature
Samples Received Intact? (Yes) No 13 °C

Laboratory Notes
W.E.T. Extraction and EPA 6020, 7471A, 8081, 8082, 8151, 8260, 8270, 7196/719
Asbestos and Dioxin analysis.

Samples sent via courier to E.S. Babcock Laboratories
Lab # B6L0036

Please Fax a copy of the completed Chain of Custody document to: Lorenzo Rodriguez, VVWRA at (760) 246-5440

DEC - 1 2016

01-02-156-7170 AB

mailing
P.O Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

CA ELAP No. 2698
EPA No. CA00102
NELAP No. OR4035
LACSD No. 10119

BioVir Laboratories, Inc

NELAC #05234CA
EPA ID# 01401, CA-ELAP #1795

685 Stone Road, Unit 6 • Benicia, CA 94510 • (707) 747-5906 • 1-800-GIARDIA • FAX (707) 747-1751 • WEB: www.biovir.com

REPORT NO.: 160476
PAGE NO.: 1 of 2
CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: 1682 Salmonella MSRV **Method: EPA 1682**

BioVir #	Sample ID	Site	Analyte	Result	Units
160476-001	160215-11	Storage Pad	Salmonella spp.	1.4	MPN/4 g TS

Collector: Michael G CollectDate: 2/15/2016 CollectTime: 11:21:00 AM
ReceiveDate: 2/16/2016 9:40:00 AM Matrix: Biosoilds Temp 6C
Volume: Analysis Start Date: 2/16/2016 Analysis Start Time: 1207
Analyst: KTucker Analysis End: 2/23/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
160476-002	160215-12	Drying Bed #4-3	Salmonella spp.	1.5	MPN/4 g TS

Collector: Michael G CollectDate: 2/15/2016 CollectTime: 11:24:00 AM
ReceiveDate: 2/16/2016 9:40:00 AM Matrix: Biosoilds Temp 6C
Volume: Analysis Start Date: 2/16/2016 Analysis Start Time: 1207
Analyst: KTucker Analysis End: 2/23/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
160476-003	160215-13	Drying Bed #4-11	Salmonella spp.	<0.3	MPN/4 g TS

Collector: Michael G CollectDate: 2/15/2016 CollectTime: 11:29:00 AM
ReceiveDate: 2/16/2016 9:40:00 AM Matrix: Biosoilds Temp 6C
Volume: Analysis Start Date: 2/16/2016 Analysis Start Time: 1207
Analyst: KTucker Analysis End: 2/23/2016

Comment:

Test: Total Solids **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units

REPORT NO.:	160476
PAGE NO.:	2 of 2
CLIENT:	Victor Valley Wastewater Reclamation Authority
ADDRESS	20111 Shay Road
	Victorville, CA 92394
CLIENT NO	VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Total Solids **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units
160476-001	**160215-11**	**Storage Pad**	**Total Solids (%)**	**92.6**	

Collector: Michael G CollectDate: 2/15/2016 CollectTime: 11:21:00 AM
ReceiveDate: 2/16/2016 9:40:00 AM Matrix: Biosoilds Temp 6C
Volume: Analysis Start Date: 2/17/16 Analysis Start Time: 17:30
Analyst: MPhilbrook Analysis End: 2/18/2016

Comment:

160476-002	**160215-12**	**Drying Bed #4-3**	**Total Solids (%)**	**89.7**	

Collector: Michael G CollectDate: 2/15/2016 CollectTime: 11:24:00 AM
ReceiveDate: 2/16/2016 9:40:00 AM Matrix: Biosoilds Temp 6C
Volume: Analysis Start Date: 2/17/16 Analysis Start Time: 17:30
Analyst: MPhilbrook Analysis End: 2/18/2016

Comment:

160476-003	**160215-13**	**Drying Bed #4-11**	**Total Solids (%)**	**92.1**	

Collector: Michael G CollectDate: 2/15/2016 CollectTime: 11:29:00 AM
ReceiveDate: 2/16/2016 9:40:00 AM Matrix: Biosoilds Temp 6C
Volume: Analysis Start Date: 2/17/16 Analysis Start Time: 17:30
Analyst: MPhilbrook Analysis End: 2/18/2016

Comment:

SAMPLE EVALUATION PERFORMANCE CRITERIA: The precise rates of recovery of organisms from environmental samples cannot be determined. B ioVir Laboratories has analyzed your sample(s) in accordance with the method described with each analyte above, however, due to inherent limitations of these methods organisms may avoid detection. For additional information regarding the limitations of the method(s) referred above please call us at 1-800-GIARDIA.

COMPANY IS NOT AN INSURER: BioVir Laboratories is not an insurer or guarantor of the quality and/or purity of water, wastewater, biosolid or ot material from which the sample was taken. BioVir offers no express or implied warranties whatsoever concerning the quality or purity of any water, wastewater, biosolid or other material which is ultimately consumed, distributed, applied or disposed.

MAINTENANCE OF RECORDS: BioVir Laboratories, Inc. shall maintain records pertaining to the historical reconstruction of client's data for a minimum of five years from the date of issuance of the final report. Records m ay be destroyed after that date unless a written client's request for records transfer is received by BioVir which requests otherwise. Records transfer or storage charges may apply after the 5 year period. THIS REP SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF BIOVIR LABORATORIES, INC.

2/26/2016
Date:

Signature

Quality Checked ElbaM

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 160476-1
Client #: VIcool
Date Rec'd: 2-16-16
Time Rec'd: 0940
temp: 6.0 °C

COMPANY NAME & ADDRESS: Victor Valley Wastewater Reclamation Authority 20111 Shay Rd Victorville Ca. 92394	DATE OF SAMPLING: 2-15-16
Contact Name: Lorenzo Rodriguez Tel: (760) 246-8638 x241	TIME OF SAMPLING: 1121
NAME OF SAMPLER: Michael Garcia	SAMPLE ID: 160215-11
LOCATION OF SAMPLING: Storage Pad	TYPE OF SAMPLE: (GRAB) COMPOSITE
TREATMENT CHARACTERISTICS: Class-A Anaerobic Digest	TOTAL SOLIDS PERCENTAGE: ____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~300g	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

567g

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Chris Wills
Date: 2-15-16
Signature:

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"			X		X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		2-15-16	1135
		2-16-16	0940

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 160476-2
Client #: VICCOL
Date Rec'd: 2-16-16
Time Rec'd: 0940
temp: 6.0°C

COMPANY NAME & ADDRESS: Victor Valley Wastewater Reclamation Authority 20111 Shay Rd. Victorville, Ca 92394	DATE OF SAMPLING: 2-15-16
Contact Name: Lorenzo Rodriguez Tel: (760) 246-8638 ext 41	TIME OF SAMPLING: 1124
NAME OF SAMPLER: Michael Gavin	SAMPLE ID: 160215-12
LOCATION OF SAMPLING: Drying Bed 4-3	TYPE OF SAMPLE: (6) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: Class-A Anaerobic Digest	TOTAL SOLIDS PERCENTAGE: _____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~300g	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

453.69

* **Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Chris Wells 2-10-16 Date

Signature:

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"			X		X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		2-15-16	1135
		2-16-16	0940

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

F:\WP\FORMS\DATASHEETDATASHT.503.8.24.12

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 160476-3
Client #: VIC001
Date Rec'd: 2-16-16
Time Rec'd: 0940
temp: 6.0 °C

COMPANY NAME & ADDRESS: Victor Valley wastewater Reclamation Authority 20111 Shay Rd. Victorville Ca. 92394 Contact Name: Lorenzo Rodriguez Tel: (760) 246-8638 x241	DATE OF SAMPLING: 2-15-16
	TIME OF SAMPLING: 1129
NAME OF SAMPLER: Michael Gouin	SAMPLE ID: 160215-13
LOCATION OF SAMPLING: Drying Bed 4-11	TYPE OF SAMPLE: (GRAB) COMPOSITE
TREATMENT CHARACTERISTICS: Class-A Anaerobic Digest	TOTAL SOLIDS PERCENTAGE: ____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~3000g	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

A25.39

* **Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ OK TO RUN PAST HOLD TIME - **(up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Chris Wells
Signature:
Date: 2-15-16

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"			X		X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		2-15-16	1135
		2-16-16	0940

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

F:\WP\FORMS\DATASHEETDATASHT.503.8.24.12

BioVir Laboratories, Inc

NELAC #05234CA
EPA ID# 01401, CA-ELAP #179

685 Stone Road, Unit 6 • Benicia, CA 94510 • (707) 747-5906 • 1-800-GIARDIA • FAX (707) 747-1751 • WEB: www.biovir.com

REPORT NO.: 160903
PAGE NO.: 1 of 6
CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: 1682 Salmonella MSRV **Method: EPA 1682**

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-001	**160503-25**	**Drying Bed #4-9**	**Salmonella spp.**	**<0.3**	**MPN/4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:27:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 496.13g Analysis Start Date: 5/4/2016 Analysis Start Time: 1320
Analyst: MPiper Analysis End: 5/7/2016

Comment

160903-002	**160503-23**	**Drying Bed #4-6**	**Salmonella spp.**	**<0.3**	**MPN/4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:16:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 439.43 Analysis Start Date: 5/4/2016 Analysis Start Time: 1320
Analyst: MPiper Analysis End: 5/7/2016

Comment

160903-003	**160503-22**	**Drying Bed #4-10**	**Salmonella spp.**	**<0.3**	**MPN/4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:20:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 477.70g Analysis Start Date: 5/4/2016 Analysis Start Time: 1320
Analyst: MPiper Analysis End: 5/7/2016

Comment

160903-004	**160503-24**	**Drying Bed #4-8**	**Salmonella spp.**	**<0.3**	**MPN/4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:30:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 453.60g Analysis Start Date: 5/4/2016 Analysis Start Time: 1320
Analyst: MPiper Analysis End: 5/7/2016

Comment

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Coliform, Fecal **Method: EPA 1681**

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-001	**160503-25**	**Drying Bed #4-9**	**Coliform, Fecal**	**15.1**	**MPN/1 g Total Solids**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:27:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 496.13g Analysis Start Date: 5/4/2016 Analysis Start Time: 1320
Analyst: MPiper Analysis End: 5/7/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-002	**160503-23**	**Drying Bed #4-6**	**Coliform, Fecal**	**25.2**	**MPN/1 g Total Solids**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:16:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 439.43 Analysis Start Date: 5/4/2016 Analysis Start Time: 1320
Analyst: MPiper Analysis End: 5/7/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-003	**160503-22**	**Drying Bed #4-10**	**Coliform, Fecal**	**10.3**	**MPN/1 g Total Solids**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:20:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 477.70g Analysis Start Date: 5/4/2016 Analysis Start Time: 1320
Analyst: MPiper Analysis End: 5/7/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-004	**160503-24**	**Drying Bed #4-8**	**Coliform, Fecal**	**19.4**	**MPN/1 g Total Solids**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:30:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 453.60g Analysis Start Date: 5/4/2016 Analysis Start Time: 1320
Analyst: MPiper Analysis End: 5/7/2016

Comment

Test: Enteric Virus **Method: ASTM D 4994-89**

BioVir #	Sample ID	Site	Analyte	Result	Units

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Enteric Virus **Method: ASTM D 4994-89**

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-001	**160503-25**	**Drying Bed #4-9**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:27:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 496.13g Analysis Start Date: 5/5/2016 Analysis Start Time: 13:55
Analyst: ValentinaL Analysis End: 5/9/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-002	**160503-23**	**Drying Bed #4-6**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:16:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 439.43 Analysis Start Date: 5/5/2016 Analysis Start Time: 13:55
Analyst: ValentinaL Analysis End: 5/9/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-003	**160503-22**	**Drying Bed #4-10**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:20:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 477.70g Analysis Start Date: 5/5/2016 Analysis Start Time: 13:55
Analyst: ValentinaL Analysis End: 5/9/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-004	**160503-24**	**Drying Bed #4-8**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:30:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 453.60g Analysis Start Date: 5/5/2016 Analysis Start Time: 13:55
Analyst: ValentinaL Analysis End: 5/9/2016

Comment

Test: Helminth Ova **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Helminth Ova **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-001	**160503-25**	**Drying Bed #4-9**	**Viable Helminth Ova**	**<1**	**Viable Ova /4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:27:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 496.13g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 6/8/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-002	**160503-23**	**Drying Bed #4-6**	**Viable Helminth Ova**	**<1**	**Viable Ova /4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:16:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 439.43 Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 6/8/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-003	**160503-22**	**Drying Bed #4-10**	**Viable Helminth Ova**	**<1**	**Viable Ova /4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:20:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 477.70g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 6/8/2016

Comment

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-004	**160503-24**	**Drying Bed #4-8**	**Viable Helminth Ova**	**<1**	**Viable Ova /4 g TS**

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:30:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 453.60g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 6/8/2016

Comment

Test: Total Solids **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Total Solids **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units
160903-001	**160503-25**	**Drying Bed #4-9**	**Total Solids (%)**	**93.1**	

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:27:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 496.13g Analysis Start Date: 5/4/16 Analysis Start Time: 1705
Analyst: MPiper Analysis End: 5/5/2016

Comment

160903-002	**160503-23**	**Drying Bed #4-6**	**Total Solids (%)**	**95.1**	

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:16:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 439.43 Analysis Start Date: 5/4/16 Analysis Start Time: 1705
Analyst: MPiper Analysis End: 5/5/2016

Comment

160903-003	**160503-22**	**Drying Bed #4-10**	**Total Solids (%)**	**91.4**	

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:20:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 477.70g Analysis Start Date: 5/4/16 Analysis Start Time: 1705
Analyst: MPiper Analysis End: 5/5/2016

Comment

160903-004	**160503-24**	**Drying Bed #4-8**	**Total Solids (%)**	**90.2**	

Collector: Bobby Hesse CollectDate: 5/3/2016 CollectTime: 12:30:00 PM
ReceiveDate 5/4/2016 9:55:00 AM Matrix: Biosoilds Temp 3.2C
Volume: 453.60g Analysis Start Date: 5/4/16 Analysis Start Time: 1705
Analyst: MPiper Analysis End: 5/5/2016

Comment

REPORT NO.:	160903
PAGE NO.:	6 of 6
CLIENT:	Victor Valley Wastewater Reclamation Authority
ADDRESS	20111 Shay Road
	Victorville, CA 92394
CLIENT NO	VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

SAMPLE EVALUATION PERFORMANCE CRITERIA: The precise rates of recovery of organisms from environmental samples cannot be determined. B ioVir Laboratories has analyzed your sample(s) in accordance with the method described with each analyte above, however, due to inherent limitations of these methods organisms may avoid detection. For additional information regarding the limitations of the method(s) referred to above please call us at 1-800-GIARDIA.

COMPANY IS NOT AN INSURER: BioVir Laboratories is not an insurer or guarantor of the quality and/or purity of water, wastewater, biosolid or other material from which the sample was taken. BioVir offers no express or implied warranties whatsoever concerning the quality or purity of any water, wastewater, biosolid or other material which is ultimately consumed, distributed, applied or disposed.

MAINTENANCE OF RECORDS: BioVir Laboratories, Inc. shall maintain records pertaining to the historical reconstruction of client's data for a minimum of five years from the date of issuance of the final report. Records m ay be destroyed after that date unless a written client's request for records transfer is received by BioVir which requests otherwise. Records transfer or storage charges may apply after the 5 year period. THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF BIOVIR LABORATORIES, INC.

6/28/2016

Date:

Signature

Quality Checked ElbaM

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 160903-1
Client #: VICOCI
Date Rec'd: 5-4-16
Time Rec'd: 0955
temp: 3.2 °C

COMPANY NAME & ADDRESS: VVWRA 20111 Stoy Rd. Victorville, Ca 92394	DATE OF SAMPLING: 5-3-16
Contact Name: Lorenzo Rodriguez Tel: (760) 246 8638 x216	TIME OF SAMPLING: 1227
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160503 - 25
LOCATION OF SAMPLING: Drying Bed 4-9	TYPE OF SAMPLE: (6) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: Class A - digested Anaerobic	TOTAL SOLIDS PERCENTAGE: ____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~300g	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

496.139

* **Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME -**
(up to 24 hrs from sampling for bacterial analysis)

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Chris Wills 5-3-16 Date

Signature:

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		5-4-16	0955 UPS

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

F:\WP\FORMS\DATASHEETDATASHT 503.6 24.12

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 160903-2
Client #: VIEco1
Date Rec'd: 5-4-16
Time Rec'd: 0955
temp: 3.2°C

COMPANY NAME & ADDRESS: VVWRA 20111 Stay Rd. Victorville, Ca 92394	DATE OF SAMPLING: 5-3-16
Contact Name: Lorenzo Rodriguez Tel: (760) 246-8638 x216	TIME OF SAMPLING: 1216
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160503-23
LOCATION OF SAMPLING: Drying Bed 4-6	TYPE OF SAMPLE: (6) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: Class A-digester Anaerobic	TOTAL SOLIDS PERCENTAGE: _____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~300g	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

439-439

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME -** **(up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Chris Wills 5-3-16 Date

Signature:

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		5-4-16	0955

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 1609033
Client #: VVcool
Date Rec'd: 5-4-16
Time Rec'd: 0955
temp: 3.2°C

COMPANY NAME & ADDRESS: VVWRA 20111 Stoddard Rd. Victorville, Ca 92394	DATE OF SAMPLING: 5-3-16
Contact Name: Lorenzo Rodriguez Tel: (760) 246-8638 x216	TIME OF SAMPLING: 12220
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160503-22
LOCATION OF SAMPLING: Drying Bed 4-10	TYPE OF SAMPLE: (6) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: Class A-digested Anaerobic	TOTAL SOLIDS PERCENTAGE: ____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~300g	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

477.70g

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Chris Wills 5-3-16 Date

Signature:

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		5-4-16	0955

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 160903-24
Client #: VVCOOL
Date Rec'd: 5-4-16
Time Rec'd: 0955
temp: 3.2 °C

COMPANY NAME & ADDRESS: VVWRA 20111 Stoy Rd. Victorville, Ca 92394	DATE OF SAMPLING: 5-3-16
Contact Name: Lorenzo Rodriguez Tel: (760) 246-8638 x216	TIME OF SAMPLING: 1230
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160503-24
LOCATION OF SAMPLING: Drying Bed 4-8	TYPE OF SAMPLE: (6) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: Class A-digester Anaerobic	TOTAL SOLIDS PERCENTAGE: ____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~300g	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

453.60g

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Chris Wills 5-3-16 Date

Signature:

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		5-4-16	0955

SHIPPING ADDRESS: BIOVIR LABORATORIES, INC., 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

IEH-BioVir Laboratories

EPA ID# 01401, CA-ELAP #1795

685 Stone Road, Unit 6 • Benicia, CA 94510 • (707) 747-5906 • 1-800-GIARDIA • FAX (707) 747-1751 • WEB: www.biovir.com

REPORT NO.: 162163
PAGE NO.: 1 of 8
CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road

Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: 1682 Salmonella MSRV **Method: EPA 1682**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-001	**160914-22**	**Drying Bed #4-1**	**Salmonella spp.**	**<0.3**	**MPN/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:45:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 423.5 g Analysis Start Date: 9/15/16 Analysis Start Time: 1616
Analyst: JTruscott Analysis End: 9/21/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-002	**160914-23**	**Drying Bed #4-2**	**Salmonella spp.**	**<0.3**	**MPN/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:52:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 391.9 g Analysis Start Date: 9/15/16 Analysis Start Time: 1616
Analyst: JTruscott Analysis End: 9/21/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-003	**160914-24**	**Drying Bed #4-3**	**Salmonella spp.**	**<0.3**	**MPN/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:57:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 485.3 g Analysis Start Date: 9/15/16 Analysis Start Time: 1616
Analyst: JTruscott Analysis End: 9/21/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-004	**160914-26**	**Drying bed # 4-1**	**Salmonella spp.**	**<0.3**	**MPN/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:47:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 444.5 g Analysis Start Date: 9/15/16 Analysis Start Time: 1616
Analyst: JTruscott Analysis End: 9/21/2016

Comment:

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: 1682 Salmonella MSRV **Method: EPA 1682**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-005	160914-25	DB#4-6	Salmonella spp.	<0.3	MPN/4 g TS

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:58:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 476.1 g Analysis Start Date: 9/15/16 Analysis Start Time: 1616
Analyst: JTruscott Analysis End: 9/21/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-006	160914-27	Drying Bed #4-11	Salmonella spp.	<0.3	MPN/4 g TS

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:55:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 456.1 g Analysis Start Date: 9/15/16 Analysis Start Time: 1616
Analyst: JTruscott Analysis End: 9/21/2016

Comment:

Test: Coliform, Fecal **Method: EPA 1681**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-001	160914-22	Drying Bed #4-1	Coliform, Fecal	0.4	MPN/1 g Total Solids

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:45:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 423.5 g Analysis Start Date: 9/15/16 Analysis Start Time: 1425
Analyst: JTruscott Analysis End: 9/16/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-002	160914-23	Drying Bed #4-2	Coliform, Fecal	17.7	MPN/1 g Total Solids

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:52:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 391.9 g Analysis Start Date: 9/15/16 Analysis Start Time: 1425
Analyst: JTruscott Analysis End: 9/16/2016

Comment:

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Coliform, Fecal **Method: EPA 1681**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-003	160914-24	Drying Bed #4-3	Coliform, Fecal	2.2	MPN/1 g Total Solids

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:57:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 485.3 g Analysis Start Date: 9/15/16 Analysis Start Time: 1425
Analyst: JTruscott Analysis End: 9/16/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-004	160914-26	Drying bed # 4-1	Coliform, Fecal	11.1	MPN/1 g Total Solids

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:47:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 444.5 g Analysis Start Date: 9/15/16 Analysis Start Time: 1425
Analyst: JTruscott Analysis End: 9/16/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-005	160914-25	DB#4-6	Coliform, Fecal	3.2	MPN/1 g Total Solids

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:58:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 476.1 g Analysis Start Date: 9/15/16 Analysis Start Time: 1425
Analyst: JTruscott Analysis End: 9/16/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-006	160914-27	Drying Bed #4-11	Coliform, Fecal	2.5	MPN/1 g Total Solids

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:55:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 456.1 g Analysis Start Date: 9/15/16 Analysis Start Time: 1425
Analyst: JTruscott Analysis End: 9/16/2016

Comment:

Test: Enteric Virus **Method: ASTM D 4994-89**

BioVir #	Sample ID	Site	Analyte	Result	Units

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Enteric Virus **Method: ASTM D 4994-89**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-001	**160914-22**	**Drying Bed #4-1**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:45:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 423.5 g Analysis Start Date: 9/17/2016 Analysis Start Time: 09:00
Analyst: ValentinaL Analysis End: 9/19/2016

Comment:

162163-002	**160914-23**	**Drying Bed #4-2**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:52:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 391.9 g Analysis Start Date: 9/17/2016 Analysis Start Time: 09:00
Analyst: ValentinaL Analysis End: 9/19/2016

Comment:

162163-003	**160914-24**	**Drying Bed #4-3**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:57:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 485.3 g Analysis Start Date: 9/17/2016 Analysis Start Time: 09:00
Analyst: ValentinaL Analysis End: 9/19/2016

Comment:

162163-004	**160914-26**	**Drying bed # 4-1**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:47:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 444.5 g Analysis Start Date: 9/17/2016 Analysis Start Time: 09:00
Analyst: ValentinaL Analysis End: 9/19/2016

Comment:

162163-005	**160914-25**	**DB#4-6**	**Enteric Virus**	**<1**	**pfu/4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:58:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 476.1 g Analysis Start Date: 9/17/2016 Analysis Start Time: 09:00
Analyst: ValentinaL Analysis End: 9/19/2016

Comment:

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Enteric Virus **Method: ASTM D 4994-89**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-006	160914-27	Drying Bed #4-11	Enteric Virus	<1	pfu/4 g TS

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:55:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 456.1 g Analysis Start Date: 9/17/2016 Analysis Start Time: 09:00
Analyst: ValentinaL Analysis End: 9/19/2016

Comment:

Test: Helminth Ova **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-001	160914-22	Drying Bed #4-1	Viable Helminth Ova	<1	Viable Ova /4 g TS

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:45:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 423.5 g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 10/21/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-002	160914-23	Drying Bed #4-2	Viable Helminth Ova	<1	Viable Ova /4 g TS

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:52:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 391.9 g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 10/21/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-003	160914-24	Drying Bed #4-3	Viable Helminth Ova	<1	Viable Ova /4 g TS

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:57:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 485.3 g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 10/21/2016

Comment:

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Helminth Ova **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-004	**160914-26**	**Drying bed # 4-1**	**Viable Helminth Ova**	**<1**	**Viable Ova /4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:47:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 444.5 g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 10/21/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-005	**160914-25**	**DB#4-6**	**Viable Helminth Ova**	**<1**	**Viable Ova /4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:58:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 476.1 g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 10/21/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-006	**160914-27**	**Drying Bed #4-11**	**Viable Helminth Ova**	**<1**	**Viable Ova /4 g TS**

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:55:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 456.1 g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 10/21/2016

Comment:

Test: Total Solids **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-001	**160914-22**	**Drying Bed #4-1**	**Total Solids (%)**	**95.4**	

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:45:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 423.5 g Analysis Start Date: 9/15/2016 Analysis Start Time: 18:05
Analyst: MPiper Analysis End: 9/16/2016

Comment:

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Total Solids **Method:**

BioVir #	Sample ID	Site	Analyte	Result	Units
162163-002	**160914-23**	**Drying Bed #4-2**	**Total Solids (%)**	**95.3**	

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:52:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 391.9 g Analysis Start Date: 9/15/2016 Analysis Start Time: 18:05
Analyst: MPiper Analysis End: 9/16/2016

Comment:

162163-003	**160914-24**	**Drying Bed #4-3**	**Total Solids (%)**	**98.0**	

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:57:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 485.3 g Analysis Start Date: 9/15/2016 Analysis Start Time: 18:05
Analyst: MPiper Analysis End: 9/16/2016

Comment:

162163-004	**160914-26**	**Drying bed # 4-1**	**Total Solids (%)**	**96.5**	

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:47:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 444.5 g Analysis Start Date: 9/15/2016 Analysis Start Time: 18:05
Analyst: MPiper Analysis End: 9/16/2016

Comment:

162163-005	**160914-25**	**DB#4-6**	**Total Solids (%)**	**98.9**	

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:58:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 476.1 g Analysis Start Date: 9/15/2016 Analysis Start Time: 18:05
Analyst: MPiper Analysis End: 9/16/2016

Comment:

162163-006	**160914-27**	**Drying Bed #4-11**	**Total Solids (%)**	**95.8**	

Collector: Bobby Hesse CollectDate: 9/14/2016 CollectTime: 1:55:00 PM
ReceiveDate: 9/15/2016 10:31:00 AM Matrix: Biosoilds Temp 13.2C
Volume: 456.1 g Analysis Start Date: 9/15/2016 Analysis Start Time: 18:05
Analyst: MPiper Analysis End: 9/16/2016

Comment:

REPORT NO.:	162163
PAGE NO.:	8 of 8
CLIENT:	Victor Valley Wastewater Reclamation Authority
ADDRESS	20111 Shay Road
	Victorville, CA 92394
CLIENT NO	VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

SAMPLE EVALUATION PERFORMANCE CRITERIA: The precise rates of recovery of organisms from environmental samples cannot be determined. B ioVir Laboratories has analyzed your sample(s) in accordance with the method described with each analyte above, however, due to inherent limitations of these methods organisms may avoid detection. For additional information regarding the limitations of the method(s) referred above please call us at 1-800-GIARDIA.

COMPANY IS NOT AN INSURER: BioVir Laboratories is not an insurer or guarantor of the quality and/or purity of water, wastewater, biosolid or oth material from which the sample was taken. BioVir offers no express or implied warranties whatsoever concerning the quality or purity of any water, wastewater, biosolid or other material which is ultimately consumed, distributed, applied or disposed.

MAINTENANCE OF RECORDS: BioVir Laboratories, Inc. shall maintain records pertaining to the historical reconstruction of client's data for a minimum of five years from the date of issuance of the final report. Records m ay be destroyed after that date unless a written client's request for records transfer is received by BioVir which requests otherwise. Records transfer or storage charges may apply after the 5 year period. THIS REP SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF BIOVIR LABORATORIES, INC.

10/28/2016

Date:

Signature

Quality Checked ElbaM

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 162163-1
Client #: VIC001
Date Rec'd: 091516
Time Rec'd: 1031
Temp: 13.2°C

COMPANY NAME & ADDRESS: Victor Valley Wastewater Reclamation Authority 20111 Shay Rd. Victorville CA 92394 Contact Name: Bobby Hesse Tel: 760-605-5843	DATE OF SAMPLING: 9-14-16
	TIME OF SAMPLING: 1345
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160914-22
LOCATION OF SAMPLING: Drying Bed #4-1	TYPE OF SAMPLE: (6) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: CLASS-A Anaerobic digested	TOTAL SOLIDS PERCENTAGE: ____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~300 grams	

4 23.5g ~~4 23.25g~~ MP 9.15.16

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Bobby Hesse Date: 9-14-16
Signature: [signature]

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
[signature]			
	[signature]	091516	1031

SHIPPING ADDRESS: BIOVIR LABORATORIES, 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 1621637
Client #: VIC001
Date Rec'd: 091516
Time Rec'd: 1031
Temp: 13.2°C

COMPANY NAME & ADDRESS:
Victor Valley Wastewater Reclamation Authority
20111 Shay Rd. Victorville CA 92394

Contact Name: Bobby Hesse Tel: 760-605-5843

NAME OF SAMPLER: Bobby Hesse

LOCATION OF SAMPLING: Drying Bed # 4-2

TREATMENT CHARACTERISTICS: CLASS-A - Anaerobic Digested

SAMPLE VOLUME (WET WEIGHT): ~300 grams

DATE OF SAMPLING: 9-14-16

TIME OF SAMPLING: 1352

SAMPLE ID: 160914-23 ~~160916~~ BH

TYPE OF SAMPLE: (G) GRAB COMPOSITE

TOTAL SOLIDS PERCENTAGE: _____ %
(MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)

391.9g

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Bobby Hesse
Signature:
Date: 9-14-16

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		091516	1031

SHIPPING ADDRESS: BIOVIR LABORATORIES, 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 1621633
Client #: VIC001
Date Rec'd: 091516
Time Rec'd: 1031
Temp: 13.2°C

COMPANY NAME & ADDRESS: Victor Valley Wastewater Reclamation Authority, 20111 Shay Rd, Victorville CA, 92394 Contact Name: Bobby Hesse Tel: 760-605-5843	DATE OF SAMPLING: 9-14-16
	TIME OF SAMPLING: 1357
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160914-24
LOCATION OF SAMPLING: Drying Bed #4-3	TYPE OF SAMPLE: (6) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: CLASS-A Anaerobic Digested	TOTAL SOLIDS PERCENTAGE: _____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~300 grams	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

485.3g

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Bobby Hesse
Signature:
Date: 9-14-16

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		091516	1031

SHIPPING ADDRESS: BIOVIR LABORATORIES, 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY: 4
LIMS #: 162163-7
Client #: VIC001
Date Rec'd: 091516
Time Rec'd: 1031
Temp: 13.2°C

JJ 091516

COMPANY NAME & ADDRESS: Victor Valley Wastewater Reclamation Authority 20111 Shay Rd Victorville CA, 92394	DATE OF SAMPLING: 9-14-16
Contact Name: Bobby Hesse Tel: 760-605-5843	TIME OF SAMPLING: 1347
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160914-26
LOCATION OF SAMPLING: Drying Bed # 4-5	TYPE OF SAMPLE: (G) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: CLASS-A Anaerobic Digested	TOTAL SOLIDS PERCENTAGE: ____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~ 300grams	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

444.5g

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Bobby Hesse
Signature:
Date: 9-14-16

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		091516	1031

SHIPPING ADDRESS: BIOVIR LABORATORIES, 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 1621635
Client #: VTC001
Date Rec'd: 091516
Time Rec'd: 1031
Temp: 13.2°C

COMPANY NAME & ADDRESS: Victorville Wastewater Reclamation Authority 20111 Shay Rd. Victorville CA, 92394	DATE OF SAMPLING: 9-14-16
Contact Name: Bobby Hesse Tel: 760-605-5843	TIME OF SAMPLING: 1358
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160914-25
LOCATION OF SAMPLING: Drying Bed #4-6	TYPE OF SAMPLE: (G) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: CLASS-A Anaerobic Digested	TOTAL SOLIDS PERCENTAGE: ____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~ 300 grams	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

476.1g

* **Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Bobby Hesse
Signature:
Date: 9-14-16

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		091516	1031

SHIPPING ADDRESS: BIOVIR LABORATORIES, 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

BioVir LABORATORIES

BIOSOLIDS
SAMPLE DATA SHEET

(Please fill out applicable areas, sign and return to BioVir with the sample.)
Phone: 1-800-GIARDIA Fax: 707-747-1751 WEB: www.biovir.com
Note: Please print clearly using waterproof ink.

LAB USE ONLY:
LIMS #: 162163-16
Client #: VIC001
Date Rec'd: 091516
Time Rec'd: 1031
Temp: 13.2°C

COMPANY NAME & ADDRESS: Victor Valley Wastewater Reclamation Authority 20111 Shay Rd Victorville CA, 92394 Tel: 760-605-5843 Contact Name: Bobby Hesse	DATE OF SAMPLING: 9-14-16
	TIME OF SAMPLING: 1355
NAME OF SAMPLER: Bobby Hesse	SAMPLE ID: 160914-27
LOCATION OF SAMPLING: Drying Bed #4-11	TYPE OF SAMPLE: (G) GRAB COMPOSITE
TREATMENT CHARACTERISTICS: CLASS-A Anaerobic Digested	TOTAL SOLIDS PERCENTAGE: _____ % (MUST BE INCLUDED IN ORDER TO BEGIN ANALYSIS)
SAMPLE VOLUME (WET WEIGHT): ~ 300 grms	

HOLD TIMES (Store and ship cold)	ENTERIC VIRUS	HELMINTH OVA	SALMONELLA	FECAL COLIFORM
	2 Weeks	1 Month	6 Hours*	8 Hours*

456.1g

*** Fecal Coliform - Language Extracted from EPA Fecal Coliform (Biosolids) Method 1681 (July 2006):** For fecal coliform samples for sewage sludge (biosolids) only, the holding time is extended to 24 hours for the following sample types using either EPA Method 1680 (LTB-EC) or 1681 (A-1): Class A composted, Class B aerobically digested, and Class B anaerobically digested. All other matrices should be analyzed within 8 hours of sample collection, 6 hour maximum transport and 2 hours for sample processing. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.

Salmonella - Language Extracted from EPA Salmonella (Biosolids) Method 1682 (July 2006): Analyses should begin immediately, preferably, within 2 hours of collection. If it is impossible to examine samples within 2 hours, samples must be maintained at <10°C until analysis. Samples must not be frozen. Sample analysis must begin within 6 hours unless otherwise specified in the Code of Federal Regulations Part 503. Note: Adherence to sample handling procedures and holding time limits is critical to the production of valid data. Sample results will be considered invalid if these conditions are not met.
A holding time variance is allowed from your Regional Administrator under Section 136.3(e). Please refer to the Final Rule for details.

☒ **OK TO RUN PAST HOLD TIME - (up to 24 hrs from sampling for bacterial analysis)**

☐ **SAMPLE COMPRISED OF CLASS A COMPOSTED, CLASS B AEROBICALLY OR ANAEROBICALLY DIGESTED BIOSOLIDS (FECAL COLIFORM TEST ONLY).**

Print Name: Bobby Hesse
Signature:
Date: 9-14-16

ASSAY(S) TO BE PERFORMED - (PLEASE CHECK)

ANALYTICAL STANDARD	ENTERIC VIRUS ASTM D 4994-89	HELMINTH OVA EPA 625/R-92/013	SALMONELLA EPA 1682	FECAL COLIFORM EPA 1681	TOTAL SOLIDS EPA 1684
CLASS "A"	X	X	X	X	X
CLASS "B"					

COMMENTS:

RELINQUISHED BY (SIGNED)	RECEIVED BY (SIGNED)	DATE	TIME
		091516	1031

SHIPPING ADDRESS: BIOVIR LABORATORIES, 685 STONE ROAD, UNIT 6, BENICIA CALIFORNIA 94510

IEH-BioVir Laboratories

EPA ID# 01401, CA-ELAP #1795

685 Stone Road, Unit 6 • Benicia, CA 94510 • (707) 747-5906 • 1-800-GIARDIA • FAX (707) 747-1751 • WEB: www.biovir.com

REPORT NO.: 162381
PAGE NO.: 1 of 3
CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road

Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: 1682 Salmonella MSRV **Method: EPA 1682**

BioVir #	Sample ID	Site	Analyte	Result	Units
162381-001	01	None Given	Salmonella spp.	<0.3	MPN/4 g TS

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM
ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C
Volume: 510.3g Analysis Start Date: 10/7/16 Analysis Start Time: 1120
Analyst: JTruscott Analysis End: 10/12/2016

Comment:

BioVir #	Sample ID	Site	Analyte	Result	Units
162381-002	02	None Given	Salmonella spp.	<0.3	MPN/4 g TS

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 11:00:00 AM
ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C
Volume: 510.3g Analysis Start Date: 10/7/16 Analysis Start Time: 1125
Analyst: JTruscott Analysis End: 10/12/2016

Comment:

Test: Coliform, Fecal **Method: EPA 1681**

BioVir #	Sample ID	Site	Analyte	Result	Units
162381-001	01	None Given	Coliform, Fecal	<0.21	MPN/1 g Total Solids

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM
ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C
Volume: 510.3g Analysis Start Date: 10/7/16 Analysis Start Time: 1144
Analyst: JTruscott Analysis End: 10/12/2016

Comment:

CLIENT: Victor Valley Wastewater Reclamation Authority
ADDRESS 20111 Shay Road
Victorville, CA 92394
CLIENT NO VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Enteric Virus **Method: ASTM D 4994-89**

BioVir #	Sample ID	Site	Analyte	Result	Units
162381-001	01	None Given	Enteric Virus	<1	pfu/4 g TS

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM
ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C
Volume: 510.3g Analysis Start Date: 10/12/2016 Analysis Start Time: 09:20
Analyst: ElenaS Analysis End: 10/17/2016

Comment:

Test: Helminth Ova **Method: EPA/625/R-92/013**

BioVir #	Sample ID	Site	Analyte	Result	Units
162381-001	01	None Given	Helminth Ova	<1	Helminth Ova observed / 4 g Total Solids

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM
ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C
Volume: 510.3g Analysis Start Date: Analysis Start Time:
Analyst: SMullaney Analysis End: 11/11/2016

Comment:

Test: Total Solids **Method: SM2540B**

BioVir #	Sample ID	Site	Analyte	Result	Units
162381-001	01	None Given	Total Solids (%)	83.9	% Total Solids

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 9:50:00 AM
ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C
Volume: 510.3g Analysis Start Date: 10/10/16 Analysis Start Time: 17:45
Analyst: MPhilbrook Analysis End: 10/11/2016

Comment:

REPORT NO.:	162381
PAGE NO.:	3 of 3
CLIENT:	Victor Valley Wastewater Reclamation Authority
ADDRESS	20111 Shay Road
	Victorville, CA 92394
CLIENT NO	VIC001 **CLIENT PO:** N/A

ASSAY RESULTS:

Test: Total Solids **Method: SM2540B**

BioVir #	Sample ID	Site	Analyte	Result	Units
162381-002	**02**	**None Given**	**Total Solids (%)**	**97.8**	

Collector: Bobby Hesse CollectDate: 10/6/2016 CollectTime: 11:00:00 AM
ReceiveDate: 10/7/2016 9:20:00 AM Matrix: Biosoilds Temp 7.7C
Volume: 510.3g Analysis Start Date: 10/10/16 Analysis Start Time: 17:45
Analyst: MPhilbrook Analysis End: 10/11/2016

Comment:

SAMPLE EVALUATION PERFORMANCE CRITERIA: The precise rates of recovery of organisms from environmental samples cannot be determined. B ioVir Laboratories has analyzed your sample(s) in accordance with the method described with each analyte above, however, due to inherent limitations of these methods organisms may avoid detection. For additional information regarding the limitations of the method(s) referred above please call us at 1-800-GIARDIA.
COMPANY IS NOT AN INSURER: BioVir Laboratories is not an insurer or guarantor of the quality and/or purity of water, wastewater, biosolid or ot material from which the sample was taken. BioVir offers no express or implied warranties whatsoever concerning the quality or purity of any water, wastewater, biosolid or other material which is ultimately consumed, distributed, applied or disposed.
MAINTENANCE OF RECORDS: BioVir Laboratories, Inc. shall maintain records pertaining to the historical reconstruction of client's data for a minimum of five years from the date of issuance of the final report. Records m ay be destroyed after that date unless a written client's request for records transfer is received by BioVir which requests otherwise. Records transfer or storage charges may apply after the 5 year period. THIS REP SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF BIOVIR LABORATORIES, INC.

11/15/2016
Date:

Signature

Quality Checked ElbaM

Attachment B. Biosolids Evaluation Reports

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-9 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	5/23/2016 11:04
Sample ID #	160523-13
Sampled By:	Phayean McZeal

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	9.2	PASS	
Cadmium	39	mg/kg	2.3	PASS	
Chromium, Total	1200	mg/kg	51	PASS	
Copper	1500	mg/kg	360	PASS	
Lead	300	mg/kg	18	PASS	
Mercury	17	mg/kg	0.41	PASS	
Molybdenum	18	mg/kg	18	PASS	
Nickel	420	mg/kg	23	PASS	
Selenium	36	mg/kg	6.8	PASS	
Zinc	2800	mg/kg	980	PASS	
Fecal Coliform	1000	MPN/g	15.1	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	94		
Bio Vir Lab Total Solids	Average - see below	%	93.1		
Average Total Solids	90	%	94	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review:

Operations Review:

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-10 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	5/23/2016 11:08
Sample ID #	160523-14
Sampled By:	Phayean McZeal

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	6.6	PASS	
Cadmium	39	mg/kg	1.4	PASS	
Chromium, Total	1200	mg/kg	41	PASS	
Copper	1500	mg/kg	250	PASS	
Lead	300	mg/kg	13	PASS	
Mercury	17	mg/kg	0.56	PASS	
Molybdenum	18	mg/kg	13	PASS	
Nickel	420	mg/kg	18	PASS	
Selenium	36	mg/kg	5.7	PASS	
Zinc	2800	mg/kg	660	PASS	
Fecal Coliform	1000	MPN/g	10.3	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	96		
Bio Vir Lab Total Solids	Average - see below	%	91.4		
Average Total Solids	90	%	94	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review: Lynn Love

Operations Review:

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-11 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	9/14/2016 13:55
Sample ID #	160914-27
Sampled By:	Bobby Hesse

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	5.5	PASS	
Cadmium	39	mg/kg	3.3	PASS	
Chromium, Total	1200	mg/kg	51	PASS	
Copper	1500	mg/kg	360	PASS	
Lead	300	mg/kg	14	PASS	
Mercury	17	mg/kg	1.1	PASS	
Molybdenum	18	mg/kg	13	PASS	
Nickel	420	mg/kg	19	PASS	
Selenium	36	mg/kg	7.4	PASS	
Zinc	2800	mg/kg	940	PASS	
Fecal Coliform	1000	MPN/g	2.5	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	94		
Bio Vir Lab Total Solids	Average - see below	%	95.8		
Average Total Solids	90	%	95	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review: Lyan Love

Operations Review:

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-1 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	9/14/2016 13:45
Sample ID #	160914-22
Sampled By:	Bobby Hesse

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	4.9	PASS	
Cadmium	39	mg/kg	2.3	PASS	
Chromium, Total	1200	mg/kg	39	PASS	
Copper	1500	mg/kg	270	PASS	
Lead	300	mg/kg	11	PASS	
Mercury	17	mg/kg	2	PASS	
Molybdenum	18	mg/kg	9.3	PASS	
Nickel	420	mg/kg	15	PASS	
Selenium	36	mg/kg	5.1	PASS	
Zinc	2800	mg/kg	680	PASS	
Fecal Coliform	1000	MPN/g	0.4	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	91		
Bio Vir Lab Total Solids	Average - see below	%	95.4		
Average Total Solids	90	%	93	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review:

Operations Review:

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-2 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	9/14/2016 13:52
Sample ID #	160914-23
Sampled By:	Bobby Hesse

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	5	PASS	
Cadmium	39	mg/kg	3.3	PASS	
Chromium, Total	1200	mg/kg	44	PASS	
Copper	1500	mg/kg	250	PASS	
Lead	300	mg/kg	12	PASS	
Mercury	17	mg/kg	1.3	PASS	
Molybdenum	18	mg/kg	13	PASS	
Nickel	420	mg/kg	16	PASS	
Selenium	36	mg/kg	6	PASS	
Zinc	2800	mg/kg	750	PASS	
Fecal Coliform	1000	MPN/g	17.7	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	95		
Bio Vir Lab Total Solids	Average - see below	%	95.3		
Average Total Solids	90	%	95	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review:

Operations Review:

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-3 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	9/14/2016 13:57
Sample ID #	160914-24
Sampled By:	Bobby Hesse

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	4.2	PASS	
Cadmium	39	mg/kg	1.4	PASS	
Chromium, Total	1200	mg/kg	31	PASS	
Copper	1500	mg/kg	190	PASS	
Lead	300	mg/kg	7.8	PASS	
Mercury	17	mg/kg	1.1	PASS	
Molybdenum	18	mg/kg	11	PASS	
Nickel	420	mg/kg	14	PASS	
Selenium	36	mg/kg	3.4	PASS	
Zinc	2800	mg/kg	410	PASS	
Fecal Coliform	1000	MPN/g	2.2	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	93		
Bio Vir Lab Total Solids	Average - see below	%	98		
Average Total Solids	90	%	96	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review:

Operations Review:

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-5 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	9/14/2016 13:47
Sample ID #	160914-26
Sampled By:	Bobby Hesse

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	6.4	PASS	
Cadmium	39	mg/kg	3	PASS	
Chromium, Total	1200	mg/kg	42	PASS	
Copper	1500	mg/kg	310	PASS	
Lead	300	mg/kg	11	PASS	
Mercury	17	mg/kg	0.99	PASS	
Molybdenum	18	mg/kg	13	PASS	
Nickel	420	mg/kg	16	PASS	
Selenium	36	mg/kg	5.6	PASS	
Zinc	2800	mg/kg	800	PASS	
Fecal Coliform	1000	MPN/g	11.1	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	94		
Bio Vir Lab Total Solids	Average - see below	%	96.5		
Average Total Solids	90	%	95	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review:

Operations Review:

Victor Valley Wastewater Reclamation Authority

A Joint Powers Authority and Public Agency of the State of California

Plant Address: 20111 Shay Road · Victorville, CA 92394 · TEL: (760) 246-8638 FAX: (760) 246-5440

Website: www.vvwra.com E-mail: mail@vvwra.com

California Department of Public Health - Environmental Laboratory Accreditation Program Certificate # 2561

Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-6 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	5/23/2016 10:57
Sample ID #	160523-11
Sampled By:	Phayean McZeal

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	8.4	PASS	
Cadmium	39	mg/kg	2.1	PASS	
Chromium, Total	1200	mg/kg	53	PASS	
Copper	1500	mg/kg	310	PASS	
Lead	300	mg/kg	16	PASS	
Mercury	17	mg/kg	0.48	PASS	
Molybdenum	18	mg/kg	17	PASS	
Nickel	420	mg/kg	23	PASS	
Selenium	36	mg/kg	5	PASS	
Zinc	2800	mg/kg	910	PASS	
Fecal Coliform	1000	MPN/g	25.2	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	96		
Bio Vir Lab Total Solids	Average - see below	%	95.1		
Average Total Solids	90	%	96	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review:

Operations Review:

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Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-8 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	5/23/2016 11:01
Sample ID #	160523-12
Sampled By:	Phayean McZeal

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	8.1	PASS	
Cadmium	39	mg/kg	1.8	PASS	
Chromium, Total	1200	mg/kg	43	PASS	
Copper	1500	mg/kg	310	PASS	
Lead	300	mg/kg	13	PASS	
Mercury	17	mg/kg	0.53	PASS	
Molybdenum	18	mg/kg	16	PASS	
Nickel	420	mg/kg	20	PASS	
Selenium	36	mg/kg	6.8	PASS	
Zinc	2800	mg/kg	810	PASS	
Fecal Coliform	1000	MPN/g	19.4	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	92		
Bio Vir Lab Total Solids	Average - see below	%	90.2		
Average Total Solids	90	%	91	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review:

Operations Review:

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Biosolids Evaluation Report

Sample Location	Stage From Drying Bed #4-6 (Class A) Biosolids (6 Grab-Comp) Composite
Sample Date	9/14/2016 13:58
Sample ID #	160914-25
Sampled By:	Bobby Hesse

Pollutant	Requirement/Limit	Units	Sample Results	Result	Comments
Arsenic	41	mg/kg	8.8	PASS	
Cadmium	39	mg/kg	6.9	PASS	
Chromium, Total	1200	mg/kg	54	PASS	
Copper	1500	mg/kg	400	PASS	
Lead	300	mg/kg	17	PASS	
Mercury	17	mg/kg	0.78	PASS	
Molybdenum	18	mg/kg	19	FAIL	
Nickel	420	mg/kg	21	PASS	
Selenium	36	mg/kg	7.2	PASS	
Zinc	2800	mg/kg	930	PASS	
Fecal Coliform	1000	MPN/g	3.2	PASS	
Enteric Viruses	1	PFU/4 g	1	PASS	Not Detected*
Helminth Ova	1	ova/4 g	1	PASS	Not Detected*
Salmonella	3	MPN/4 g	0.3	PASS	Not Detected*
Babcock Labs Total Solids	Average - see below	%	96		
Bio Vir Lab Total Solids	Average - see below	%	98.9		
Average Total Solids	90	%	97	PASS	

*Constituent Not Detected in this sample, value recorded is the detection limit of the test.

Action Recommended: Not acceptable for offsite disposal

Lab Review:

Operations Review: