



COMMONWEALTH of VIRGINIA

DEPARTMENT OF HEALTH

**OFFICE OF DRINKING
WATER**
Richmond Field Office

Karen Shelton, MD
State Health Commissioner

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COMPLETION OF LEVEL 1 ASSESSMENT

****Transmitted Via Email – No Paper Copy to Follow****

SUBJECT: Louisa County
Water: BIO-CAT Inc.
PWSID: 2109060

August 7, 2025

Patrick Woodson
BIO-CAT, Inc.
Transmitted Via Email – No Paper Copy to Follow

Mr. Woodson,

The Office of Drinking Water has received and reviewed the Level 1 Assessment that was completed on August 6, 2025, and was required per the Notice of Level 1 Assessment Requirement dated August 1, 2025, for BIO-CAT, Inc. waterworks; PWSID: 2109060.

From the Level 1 Assessment form, a cause could not be determined. Several elements possibly contributed to the coliform present result. It was noted that land development has occurred near the property within the last year. Specifically, “land area adjacent to the well head was elevated 1+ years ago for future building, but the project is currently on hold.”

Additionally, assessment element 7.11 noted that a triggered source water sample result had total coliform present, this was sample E250705571 collected on July 28, 2025, from Well 1. Due to this sample testing positive for total coliform bacteria, ODW recommends shocking Well 1 and flushing the system prior to taking your next monthly routine sample. Finally, ODW recommends checking that your calcite, softener, and UV treatments are functioning properly to ensure adequate sterilization of the water supply.

If we can be of further assistance, please contact me at lydia.belser@vdh.virignia.gov or (804) 910-6111.

Sincerely,



Lydia Belser, Envi Health Spec, Sr.
ODW- Richmond Field Office

Enclosures:
Level 1 Assessment Form

cc: Blue Ridge District Health Director- Ryan McKay
Blue Ridge District EH Manager-Jack McClelland
County Admin- Christian Goodwin
County Building Official- Jack Grubbs
Operator- Bert Toulotte

FM-C7-Attachment 1. Level 1 Assessment Form.

Virginia Department of Health
Office of Drinking Water (ODW)
Waterworks Level 1 Assessment

Waterworks Name: BIO-Cat Inc.	PWSID No.: 2109060			
Source Water Type: Groundwater	City/County: Louisa County			
Waterworks Type: <input type="checkbox"/> Community	Population Served: 50			
<input checked="" type="checkbox"/> Nontransient Noncommunity	<input type="checkbox"/> Seasonal			
<input type="checkbox"/> Transient Noncommunity	<input type="checkbox"/> Seasonal			
Owner: BIO-CAT Inc.	Phone: 434-589-4777			
Compliance Monitoring Period:	July 2025			
Number of Samples	Required	Collected	Total coliform present	<i>E.coli</i> present
Routine per monitoring period	1	1	1	No
Repeat	3	3	3	No
Triggered source water	1	1	1	No
Date ODW Notified Waterworks Level 1 Assessment Required:	08/01/2025			
Assessment Due Date:	08/31/2025			
Assessment Conducted Date:				
Reason Level 1 Assessment is required:	1. <input checked="" type="checkbox"/> Two or more coliform present samples 2. <input type="checkbox"/> Failure to collect all repeat samples (subsequent to coliform present sample) 3. <input type="checkbox"/> Greater than 5% of samples are coliform present			

Waterworks Assessment Instructions

Consider each assessment element listed in the following evaluation form to determine if the element listed may have contributed to the "present" bacteriological sample results.

A response in a **highlighted** box suggests the assessment element may have contributed to the "present" bacteriological sample results and is a potential Sanitary Defect. Provide an explanation of why the highlighted element could have contributed to the "present" bacteriological sample results in the column titled "Describe any element of concern." Use the "Additional Comments" space on page 4 of the form, if needed. Provide the date and description of Corrective Actions taken in the table on page 5. Provide a list of Additional Actions Needed for uncorrected sanitary defects in the table on page 5. List each item, in any box, by the assessment element number as identified in the first column. Notify the appropriate ODW field office, in writing, no later than seven days after completion of each corrective action, if a corrective action is listed in a submitted schedule.

Notes:

1. For wholesale and consecutive waterworks:
 - a. Review records related to flows, pressures, and water quality parameters at the connection(s) with the wholesale water supplier.
 - b. Consecutive waterworks owners shall notify the wholesale water supplier whenever the consecutive system has been triggered to perform a Level 1 Assessment.
 - c. Wholesale waterworks owners shall notify consecutive waterworks owners as total coliform bacteria could have spread to the consecutive waterworks distribution system.
2. The Level 1 Assessment must be completed based on data and documentation available to the waterworks operator and maintained on file by the waterworks. The completed Level 1 Assessment must be returned to the appropriate ODW-Field Office within 30 days of being notified that the assessment was triggered.

FM-C7-Attachment 1. Level 1 Assessment Form.

Virginia Department of Health
Office of Drinking Water (ODW)
Waterworks Level 1 Assessment

Waterworks Name: BIO-Cat Inc.	PWSID No.: 2109060
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Assessment Elements	Response			Describe any element of concern
	Y	N	N/A	
1. Sample Site				
1.1 Were all sites used listed on approved BSSP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.2 Are the sample tap and the surrounding area clean?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.3 Describe sample tap fixtures (e.g., outdoor hose bib, indoor cold water faucet, etc.?)				Description: indoor cold water
1.4 Is the sample tap a swivel faucet?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Sample Collection Protocol				
2.1 Was the sample collector properly instructed in collection procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.2 Were taps flushed adequately (approx. 5 minutes)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.3 Were aerators removed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.4 Were sample containers sealed/unopened/untampered prior to use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5 Were the sample containers/rim or cap contaminated during sampling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.6 Were the taps disinfected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.7 Were samples shipped/delivered per laboratory instruction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Recent Operational Changes to the System				
3.1 New/different/emergency well used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.2 Changes in operation or treatment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.3 Any possible contamination events not directly related to operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.4 If seasonal system, was start-up initiated without flushing and disinfection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.5 Sites with low chlorine residual (<0.2 mg/L)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.6 Did power outages occur prior to "present" bacteria results?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Recent Distribution System Event That Might Introduce Contaminants				
4.1 Low water pressure (<20 psi)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.2 Cross-connection problem	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.3 Pump station problem	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.4 Fire hydrants/blow off used	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.5 Line break/repair or nearby construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.6 Yard hydrants near sample location	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.7 Customer complaints about pressure, water quality prior to sampling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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Assessment Elements		Response			Describe any element of concern
		Y	N	N/A	
5. Storage Tanks/Tank Sites					
5.1	Are lot/tank ladder secured from unauthorized access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5.2	Are roof access hatches on atmospheric tanks locked and properly sealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5.3	Are roof vents on atmospheric tanks properly sealed/screened?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5.4	Are structures water tight/without leak?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.5	Any hole/damage in the tank structure that is not sleeved or protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.6	Are drain and overflow line outlets screened?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.7	Have tank(s) been serviced, repaired, or maintained recently?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.8	Any recent unusual changes in tank water levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Treatment Process Upsets Or Change Noted:				<input type="checkbox"/>	
6.1	Has there been an interruption of treatment operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.2	Are chemical solution containers uncovered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.3	Does building housing treatment equipment reflect poor house keeping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.4	Any chlorine residual <0.2 mg/L at entry point to distribution system?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6.5	Any turbidity values ≥ 0.3 NTU in water entering the distribution system?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6.6	Did treatment fail to continuously meet 4 log inactivation of viruses requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Water Supply Well(s)				<input type="checkbox"/>	
7.1	Is well house free of pests/vermin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7.2	Is well cap and seal securely in place?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.3	Is well casing vent properly screened?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.4	Is electrical connection to pump secure and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.5	If there is an air release or screened pressure relief valve, is the release feature piped to grade?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7.6	Is the wellhead free of any cross-connections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.7	Any hoses left connected to a hose bib w/o a vacuum breaker in well house?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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Assessment Elements		Response			Describe any element of concern
		Y	N	N/A	
7. Water Supply Well(s) cont.				<input type="checkbox"/>	
7.8	Is the well pump blow-off line air gapped w/screened discharge?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7.9	Any recent ponding or flooding around wellhead?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7.10	Is well site secure? (i.e. fenced, gate or building locked)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7.11	Was a triggered source water sample result total coliform present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.12	Has the well pump been replaced during the current monitoring period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. Source – Surface/GUDI Water Supply				<input checked="" type="checkbox"/>	
8.1	Has there been an incident of raw water turbidity (≥ 100 NTU) within 14 days prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Typical turbidity ranges from _____ to _____.
8.2	Any sewage overflow, storm water discharge or construction excavation in the vicinity of the source within 14 days prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Source – Spring(s)				<input type="checkbox"/>	
9.1	Recent heavy rainfall, flooding event prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Typical turbidity ranges from _____ to _____.
9.2	Recent incident of water turbidity (≥ 100 NTU) prior to sampling?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9.3	Has there been any damage, change or repairs to the spring(s) infrastructure?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9.4	Have there been any unusual changes or incidents recently within the spring recharge area prior to the sampling event?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments					
<p>Land area adjacent to well head was excavated 1 + year ago for future building, but that project is currently on hold.</p>					

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Summary	
Assessment Elements/Sanitary Defects	Corrective Action Taken and Date
<i>None noted</i>	
Additional Actions Needed But Not Completed	
Action Needed	Completion Deadline:
Conclusions:	
<input checked="" type="checkbox"/> A cause for the contamination was not determined.	
Assistance with assessment provided by: <i>Bert Toulette</i>	
Print name of person completing the form: Signature:	<u>Bert Toulette</u>
	Date: <u>8/6/25</u>
Print name of Waterworks Representative: Signature:	<u>PATRICK WOODSON</u>
	Date: <u>8-6-25</u>

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By Lydia Belser at 2:56 pm, Aug 06, 2025

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Reserved for VDH-ODW Review			
	Response		
	Yes	No	Comments
1. Has assessment been completed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Was likely reason for TC+ occurrence found?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Was assessment completed on time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Have all identified problems or sanitary defects been corrected by the waterworks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
a. If 'No', has an acceptable schedule of corrective actions been provided?	<input type="checkbox"/>	<input type="checkbox"/>	
b. If a correction schedule is necessary, has schedule been entered into SDWIS?	<input type="checkbox"/>	<input type="checkbox"/>	

ODW Reviewer:

Lydia Belser

(Print)

Date:

08/06/2025